

GREATER TORONTO AREA 3Rs ANALYSIS
SOCIAL ENVIRONMENT TECHNICAL
APPENDIX - SCHEDULE H

DRAFT - NOVEMBER 1993



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for
Fiscal Planning and Information Management Branch
Ministry of Environment and Energy

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GTA 3Rs ANALYSIS
SOCIAL ENVIRONMENT TECHNICAL APPENDIX

LIST OF SCHEDULES

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SCHEDULE H

GTA Generic Net Effects Tables

TABLE H1.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

CRITERION : Potential Local Community Impacts **System Indicator**

: Residential Existing
: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> - In-vessel composting of source separated organics - Centralized windrow composting of leaf and yard waste - Community Composting 	<ul style="list-style-type: none"> - Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood - Potential Health concerns <p>Odour effects have been significant enough to have leaf and yard waste composting facilities closed (RLS, 1993; J. Scott, 1993)</p> <ul style="list-style-type: none"> - Potential for odour and vermin problems at community composting facilities. 	<ul style="list-style-type: none"> - Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems - MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects. - Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter. - State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993). - As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale. 	<ul style="list-style-type: none"> - Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management. - Potential for odour and vermin problems at community composting facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities (continued)</p> <ul style="list-style-type: none"> • In-vessel composting of source separated organics • Centralized windrow composting of leaf and yard waste • Community Composting 		<ul style="list-style-type: none"> • Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Mantato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). • Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). • Proper supervision of community composters 	
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Traffic concerns • Visual effect of large bins in plazas • Centres may not be desirable in all areas due to stigma 	<ul style="list-style-type: none"> • Locate Reuse Centres in areas of compatible land use 	<p>No effect</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - childrens safety - property devaluation - illegal dumping at centre. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: <ul style="list-style-type: none"> heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markers. While these materials may not be kept at the MRF's, storage will be required elsewhere. Local residents should be on a monitoring/management committee. 	<ul style="list-style-type: none"> Potential minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <p>Processing centre for dry recyclables</p>		<p>Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).</p> <p>Public consultation program established with local residents to ensure all concerns and effects are addressed.</p>	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations/landfill 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: Depots and transfer stations should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.). Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere. Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). 	<ul style="list-style-type: none"> Potential minor nuisance effects at some facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations (continued) <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfill 		Local residents should be on a monitoring/management committee	
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	No effect	Mitigation not required	No effect

TABLE H1.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Existing

CRITERION : Potential Local Community Impacts

Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Elderly and physically challenged may have difficulty in setting out recyclable and compostable material for pick-up and using drop-off facilities. 	<ul style="list-style-type: none"> Provide maximum convenience possible 	<ul style="list-style-type: none"> Elderly and physically challenged may have difficulty in setting out recyclable and compostable material for pick-up and using drop-off facilities.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Very minor nuisance effects associated with odour and physical strain on elderly. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Very minor nuisance effects associated with odour and physical strain on elderly.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Possible occupational safety concerns with drivers and handlers of HHW. 	<ul style="list-style-type: none"> Education program for drivers and handlers of HHW 	<ul style="list-style-type: none"> Minor possible occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> In-vessel composting of source separated organics Centralized windrow composting of leaf and yard waste Community Composting 	<ul style="list-style-type: none"> Although the research (Curtis et al., 1991) indicates that properly managed composting produces a safe product, there are: Possible health effects on allergy sufferers, people with respiratory ailments, people with immunodeficiencies. Possible employee health concerns (Taylor, 1993). 	<ul style="list-style-type: none"> Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction. Prudence dictates that employees should practise proper hygiene and wear protective clothing. Health effects monitoring for employees and high-risk residents should be an operational condition. 	<ul style="list-style-type: none"> Employees at composting facilities may be exposed to health and safety hazards. Should be minimized by education. Could be mitigated by proper design and control. Potential for health effects on allergy sufferers, people with immuno deficiencies, etc. Magnitude of effect may be minimized by proper siting considerations of new facilities and proper management.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Food contamination issue and liability concerns of donors (Wrigley, 1993). Positive effect for low-income and disabled groups Possible transfer of pests in reuse centers, exchange days, etc. 	<ul style="list-style-type: none"> Train food distribution groups in potential contamination/spoilage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials. 	<ul style="list-style-type: none"> No effect
Public MRE's <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions 	<ul style="list-style-type: none"> Possible employee health and safety concerns. Should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE HI.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Existing
CRITERION : Potential Local Community Impacts **Indicator:** Potential Effects on Community

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Potential for community pride from participation 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Potential for community pride from participation
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Failure of programs tends to have a negative effect on community image. For example, couches, mattresses, etc. disposed in vacant lots. 	<ul style="list-style-type: none"> Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them. Assistance in organization of community garage sales, flea markets etc. Enforcement for illegal dumping 	<ul style="list-style-type: none"> Minor negative stigma effect on community image from illegal dumping
Composting Facilities <ul style="list-style-type: none"> In-vessel composting of source separated organics Centralized windrow composting of leaf and yard waste Community Composting 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> State-of-the-art odour control should be an operational condition 	<ul style="list-style-type: none"> Possible stigma effect in some communities
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> Location of the reuse centres in suitable land use area 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Possible stigma effect in some communities. Magnitude of effect dependent on site location and management of the facility
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Possible stigma effect in some communities. Magnitude of effect dependent on site location and management of the facility
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Possible increase in community pride 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible increase in community pride

TABLE H1.4
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System : Residential Existing**
CRITERION : Potential Local Community Impacts **Indicator: Potential Effects on Community Features and Businesses**

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<p>No effect</p>	<p>Mitigation not required</p>	<p>No effect</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> In-vessel composting of source separated organics Centralized windrow composting of leaf and yard waste Community Composting 	<p>Potential nuisance effects:</p> <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood <p>Potential Health concerns</p> <p>Odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993)</p> <p>Potential for odour and vermin problems at community composting facility</p>	<p>Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects.</p> <ul style="list-style-type: none"> Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter. State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993). As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale. 	<p>Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management.</p> <ul style="list-style-type: none"> Potential for odour and vermin problems at community composting facility

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities (continued)</p> <ul style="list-style-type: none"> • In-vessel composting of source separated organics • Centralized windrow composting of leaf and yard waste • Community Composting 		<ul style="list-style-type: none"> • Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Mariato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). • Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). • Proper supervision at community composting. 	
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Minor nuisance related effects on neighbouring features and businesses • Visual blight/image effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - children safety - property devaluation - illegal dumping at centre 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: <ul style="list-style-type: none"> heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere. Local residents should be on a monitoring/management committees. 	<ul style="list-style-type: none"> Potential minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's (continued)</p> <p>Processing centre for dry recyclables</p>		<p>Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Public consultation program established with local residents to ensure all concerns and effects are addressed.</p>	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<ul style="list-style-type: none"> Residential Recycling Depots and Transfer Stations Drop-off depot for dry recyclable Depots located at transfer stations/landfill 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: Depots and stations should be sited in areas of compatible land use. The facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, noise, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots, storage will be required elsewhere. 	<ul style="list-style-type: none"> Potential minor nuisance effects at some facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations (continued) <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfill 		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g., improvements to siting design, operations and technology). Local residents should be on a monitoring/management committee.	
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	No effect	Mitigation not required	No effect

TABLE H1.5
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact
System : Residential Existing
Indicator: Potential for Lifestyle Changes

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. • Bins may attract nuisances if not picked up often. 	<ul style="list-style-type: none"> • Ensure the provision of information and educational services for new residents (Enviroconics, 1990). This must be a continual effort to address turnover and increase in future densities. • Ensure regular pick-up. 	<ul style="list-style-type: none"> • Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> • Curbside collection of leaf and yard waste • Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> • Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride • Encourages positive local action 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride Encourages positive local action Inconvenience and annoyance for a minority of people: (e.g. ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals) Program may have substantial potential to increase waste diversion (MacLaren, 1990; Enviroics, 1990) 	<ul style="list-style-type: none"> Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Enviroics, 1990; MacLaren, 1990; Metropolitan Works Committee, 1992). On-going education for proper use. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride Potential for minor lifestyle inconveniences associated with backyard composters

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping Consumers may become much more concerned about size and durability of appliances and furniture Residents may become more aware of HHW and white goods management and change purchasing attitudes 	<ul style="list-style-type: none"> Improved service for white goods and large items Develop special waste days and special depots for multi-family building collection Make collection drop-off point convenient for all households and/or continue toxic taxi Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992) 	<ul style="list-style-type: none"> Residents may become more aware of HHW and white goods management and change purchasing attitudes.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • In some instances, has social welfare benefits • May contribute to acceptance of using repaired/second hand items rather than buying new products • Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc. 	<ul style="list-style-type: none"> • Provide incentives for establishing reuse centres and for holding "garage" sales 	<ul style="list-style-type: none"> • Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products. In some instances, has social welfare benefits • Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness through communal garage sales, flea markets, bazaars, etc.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclables • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Potentially encourages positive changes to conserver and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change Could increase demand for packaging reduction (Enviroincs, 1990) 	<ul style="list-style-type: none"> Expand and refine promotion and education programs to target non-participating groups and to allow for changes in demographic make-up of GTA (Enviroincs, 1990; Morgan-Fraser, 1993). Promotional/Educational programs should be based on successful programs identified in the 3Rs literature (e.g., Foltz & Hazlett, 1990). For example, pamphlets and brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many School Boards have environmental education committees and the schools are increasingly being led by Principals & V.P.'s eager to spread an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect; encourages positive changes to conserver and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change

TABLE H1.6
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System : Existing**
CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Minor direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. Net long term employment effects uncertain. Will be partly dependent on the ability to capture "Green" jobs and not lose jobs in other sectors as a result of 3Rs. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. Net long term employment effects uncertain. Will be partly dependent on the ability to capture "Green" jobs and not lose jobs in other sectors as a result of 3Rs.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and cooperative housing complexes Community composting 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<p>Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>	<p>Mitigation not required</p>	<p>Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<p>Direct employment gains, primarily in low skill jobs, are likely in at MRF's and in recycling industries. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>	<p>Mitigation not required</p>	<p>Direct employment gains, primarily in low skill jobs, are likely in at MRF's and in recycling industries. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<p>Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>	<p>Mitigation not required</p>	<p>Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<p>Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>	<p>A transition to conserve attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.</p>	<p>Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>

TABLE H1.7
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Existing
CRITERION : Potential For Broad Social Impact **Indicator:** Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at composting, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at composting, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. 	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<ul style="list-style-type: none"> Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. 	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Provides a minor short term economic benefit in the construction sector Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education 3Rs promotion and education program Consumer education program	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.	Mitigation not required	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

TABLE H1.8
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Existing

CRITERION : Potential For Broad Social Impact Indicator: Potential Operational Effects on Institutions, Commercial Enterprises and Industries

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
<ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection			
<ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Minor positive effect through support of recycling 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection			
<ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting			
<ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products). Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable. 	<ul style="list-style-type: none"> Retail stores could develop buy-back programs for large and bulky items. The consumer would then not be required to disperse items. 	<ul style="list-style-type: none"> In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separate organics Community Composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRF's			
· Processing centre for dry recyclables	· No effect	· Mitigation not required	· No effect
Residential Recycling Depots and Transfer Stations			
· Drop-off depot for dry recyclable · Depots located at transfer stations/landfills	· No effect	· Mitigation not required	· No effect
Residential Promotion and Education			
· 3Rs promotion and education program · Consumer education program	· No effect	· Mitigation not required	· No effect

TABLE H1.9
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Existing

CRITERION : Distribution of Social Costs and Benefits **Indicator:** Distribution of Socio-Economic Effects on Industry and Population Groups.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of some municipalities are provided with HHW, white and bulky goods collection, while others are not. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor effect in different level of service for white goods collection in some municipalities
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Local residents and businesses may receive nuisance effects related to composting for all region residents 	<ul style="list-style-type: none"> Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/compensation for site related impacts Address equity issue aspect of the siting process 	<ul style="list-style-type: none"> Minor negative distribution effect on local community.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items made available and adds potential market for their goods 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items made available and adds potential market for their goods

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility. 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility.
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H1.10
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Existing
CRITERION : Distribution of Social Costs and Benefits **Indicator:** Distribution of Lifestyle Effects

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Popular and environmentally beneficial lifestyle affected throughout the region (Hay, ND; Envirionics, 1990). Minor difference in lifestyle effects in multi-family and low density development. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor lifestyle distributional effect between multi-family and low density residents
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Popular and environmentally beneficial (Envirionics, 1990) Supports lifestyle change for residents with back yards but does not support lifestyle change for others (Envirionics, 1990). 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor lifestyle distributional effect between multi-family and low density residents.

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H1.11
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Existing

CRITERION : Distribution of Social Costs and Benefits

Indicator: Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Minor positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment through recycling. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Costly to start-up and establish but may have environmental benefits in the long run. Uncertain (may be better to have the yard waste composted at the household, e.g., mulch leaves and grass branches) (Lesniewski, 1993) 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term. 	<ul style="list-style-type: none"> Effect uncertain

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect through support for change in behaviour to reduction and reuse
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Positive effect through support for change in behaviour to repair and reuse and proper disposal 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect through support for change in behaviour to repair, reuse and proper disposal
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Costly to start-up and establish but environmentally and possibly economically beneficial in the long run 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term. 	<ul style="list-style-type: none"> Minor positive future generational effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future. 	<ul style="list-style-type: none"> • Province to consider removing Provincial Sales Tax or other provincial taxes for the sale of used goods 	<ul style="list-style-type: none"> • Positive effect through the support for repaired reuse of good, and subsequent reduction of resource use.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<ul style="list-style-type: none"> • Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Required support for recycling. Current generation paying the cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect as the current generation is paying the cost for changing to more sustainable behaviour.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Costly to start-up but environmentally and possibly economically beneficial in the long run. • Current generation behaviour paying cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect as the current generation is paying the cost for changing to more sustainable behaviour.
Residential Promotion and Education <ul style="list-style-type: none"> • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • Should have positive effects in changing current attitudes and behaviours to a more sustainable society. 	<ul style="list-style-type: none"> • Education material could emphasize the benefits to future generation of 3Rs actions today 	<ul style="list-style-type: none"> • Positive effects in changing current attitudes and behaviour to a more sustainable society

TABLE H2.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Existing/Committed

CRITERION : Potential Local Community Impacts

Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Effects uncertain with recycling legislation Other components; No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Effects uncertain with recycling legislation Other components; No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood - Health concerns Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993) Possible displacement of residents for the location of a new facility. Potential for odour and vermin problems at composting facility. 	<ul style="list-style-type: none"> Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects. Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter. State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993). As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale. Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). 	<ul style="list-style-type: none"> Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds, vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management. Possible displacement of residents for the location of a new facility. Potential for odour and vermin problems at community composting facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued) <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 		<ul style="list-style-type: none"> Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Proper supervision of community composters 	
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> traffic concerns visual effect of large bins in plazas centres may not be desirable in all areas due to stigma 	<ul style="list-style-type: none"> Locate reuse centres in areas of compatible land use. 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF's 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - childrens safety - property devaluation - illegal dumping at centre Possible displacement of residents from the siting of a new facility. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere. Local residents should be on a monitoring/management committees. Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Public consultation program established with local residents to ensure all concerns and effects are addressed. 	<ul style="list-style-type: none"> Potential minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near facility. Possible displacement of residents from the siting of a new facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre Possible displacement from new facilities 	<p>Mitigation will need to encompass proper siting and management.</p> <p>Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRF's. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage.</p> <p>Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)</p> <p>Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots/transfer stations, storage will be required elsewhere.</p> <p>Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).</p>	<ul style="list-style-type: none"> Potential minor nuisance effects at some facilities Possible displacement from new facilities

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none">· 3Rs promotion and education program· Consumer education program	<ul style="list-style-type: none">· No effect	<ul style="list-style-type: none">· Mitigation not required	<ul style="list-style-type: none">· No effect

TABLE H2.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System : Residential Existing/Committed**
CRITERION : Potential Local Community Impacts **Indicator: Potential Effects on Special and Sensitive Groups**

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Elderly and physically challenged may have difficult time setting out recyclable material for pick-up and using drop-off facilities. 	<ul style="list-style-type: none"> Provide maximum convenience possible 	<ul style="list-style-type: none"> Elderly and physically challenged may have difficult time setting out recyclable material for pick-up and using drop-off facilities.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Very minor nuisance effects associated with odour and physical strain on elderly. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Very minor nuisance effects associated with odour and physical strain on elderly.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Possible occupational safety concerns with drivers and handlers of HHW. 	<ul style="list-style-type: none"> HHW education for drivers and handlers 	<ul style="list-style-type: none"> Minor possible occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Although the research (Curtis et al., 1991) indicates that properly managed composting produces a safe product, there are: Possible health effects on allergy sufferers, people with respiratory ailments, people with immuno-deficiencies; Possible employee health concerns (Taylor, 1993). 	<ul style="list-style-type: none"> Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction. Prudence dictates that employees should practise proper hygiene and wear protective clothing. Health effects monitoring for employees and high-risk residents should be an operational condition. 	<ul style="list-style-type: none"> Employees at compost facilities may be exposed to health and safety hazards. Should be minimized by education. Could be mitigated by proper design and control. Potential for health effects (odours) on allergy sufferers, people with immuno-deficiencies, etc. Magnitude of effect may be minimized by proper siting considerations of new facilities and proper management.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Food contamination issue and liability concerns of donors (Wrigley, 1993) Positive effect for low-income and disabled groups Possible transfer of pests in reuse centers, exchange days, etc. 	<ul style="list-style-type: none"> Train food distribution groups in potential contamination/spoilage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials. 	<ul style="list-style-type: none"> No effect
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions 	<ul style="list-style-type: none"> Possible employee health/safety concerns. Should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions 	<ul style="list-style-type: none"> Possible employee health/safety concerns. Should be minimized by mitigation.
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H2.3
GENERIC COMPONENTS NET EFFECTS

System : Residential Existing/Committed
Indicator: Potential Effects on Community

MUNICIPALITY : GTA
CRITERION : Potential Local Community Impacts

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside Collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units in three streams • Self haul of garbage • Regional recycling legislation 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Community recycling centres • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated • Engineered recycling depot • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Possible increase in community pride from participation 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Possible increase in community pride from participation
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> • Curbside collection of leaf and yard waste • Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots. 	<ul style="list-style-type: none"> Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them. Assistance in organization of community garage sales, flea markets, etc. Enforcement for illegal dumping 	<ul style="list-style-type: none"> Potential for minor negative stigma effect on community image from illegal dumping
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> State-of-the-art odour control should be an operational condition 	<ul style="list-style-type: none"> Possible stigma effect in some communities

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> · Municipal reuse centre · Private reuse centre · Non-profit reuse centre · Charitable reuse centres · Food reuse organization · Special goods exchange days 	<ul style="list-style-type: none"> · Possible stigma effect in some communities. 	<ul style="list-style-type: none"> · Location of the reuse centres in suitable land use area. 	<ul style="list-style-type: none"> · No effect
Public MRFs <ul style="list-style-type: none"> · Processing centre for dry recyclables · Construct new MRF or improve/expand existing MRF's 	<ul style="list-style-type: none"> · Possible stigma effect in some communities. 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · Possible stigma effect in some communities. Magnitude of effect dependant on site location and management of the facility
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> · Drop-off depot for dry recyclable · Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> · No effect 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · No effect
Residential Promotion and Education <ul style="list-style-type: none"> · 3Rs promotion and education program · Consumer education program 	<ul style="list-style-type: none"> · Possible increase in community pride 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · Possible increase in community pride

TABLE H2.4
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Existing/Committed
CRITERION : Potential Local Community Impacts **Indicator:** Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Possible nuisance effects on community features and businesses from traffic and hauling. 	<ul style="list-style-type: none"> Planning and co-ordination of haulage system to minimally disrupt local community features and businesses 	<ul style="list-style-type: none"> Possible nuisance effects on community features and businesses from traffic and hauling.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting • Backyard composter distribution programs • Large 3-bin composting units distributed to apartment and co-operative housing complexes	• No effect	• Mitigation not required	• No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) • Special curbside collections of Christmas trees • Special and weekly curbside collections of white goods • Drop-off depots for white goods • Special curbside collection for bulky items • Permanent drop-off depot for HHW • Special HHW drop-off days • Toxic Taxi service • Mobile HHW depots	• No effect	• Mitigation not required	• No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood - Health concerns Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993) Possible displacement of community features and businesses for the location of a new facility. Potential for odour and vermin problems at community composting facility 	<ul style="list-style-type: none"> Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects. Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter. State-of-the-art odour control features should be design requirements. People whom work at local businesses and features should be on the monitoring/management committees (Lesnicki, 1993). As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale. 	<ul style="list-style-type: none"> Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds, vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management. Possible displacement of community features and businesses for the location of a new facility. Potential for odour and vermin problems at community composting facility

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities (continued)</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 		<p>Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Mariato et al., 1992). However, health effects could be monitored over an initial period at the required facility for workers and for people who work nearby (Taylor, 1993).</p> <ul style="list-style-type: none"> Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Proper supervision at community composting. 	
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor nuisance related effects on neighbouring features and businesses Visual blight/image effect 	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Minor nuisance effect associated with image

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - childrens safety - property devaluation - illegal dumping at centre Possible displacement of community features and businesses from the siting of a new facility. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management Siting: MRFs should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere. Local residents should be on a monitoring/management committees. 	<ul style="list-style-type: none"> Minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near facility. Possible displacement of community features and businesses from the siting of a new facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Potential nuisance related effects on nearby features and businesses <ul style="list-style-type: none"> Litter Visual Traffic, truck queuing Noise Child safety Property devaluation Illegal dumping Possible displacement of community features and businesses from location of new facilities. 	<ul style="list-style-type: none"> Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, litter, and possibility of excess storage. Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots, storage will be required elsewhere. Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements in siting, design operations and technology). 	<ul style="list-style-type: none"> Potential minor nuisance effects on community features and businesses at some facilities. Possible displacement of community features and businesses from location of new facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education 3Rs promotion and education program Consumer education program	No effect	Mitigation not required	No effect

TABLE H2.5
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Existing/Committed
CRITERION : Potential For Broad Social Impact **Indicator:** Potential for Lifestyle Changes

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Potential positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Bins may attract nuisances if not picked up often. 	<ul style="list-style-type: none"> Ensure convenience of system, weekly or bi-weekly. Ensure the provision of information and educational services for new residents (Environics, 1990). This must be a continual effort to address turnover and increase in future densities. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride Encourages positive local action Inconvenience and annoyance for a minority of people: (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals) Program may have substantial potential to increase waste diversion (MacLaren, 1990; Envirionics, 1990) 	<ul style="list-style-type: none"> Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Envirionics, 1990; MacLaren, 1990; Metropolitan Works Committee, 1992). On-going education for proper use. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. A number of minor lifestyle inconveniences associated with backyard, vermi and multi-family composters (odours, vermin, etc.).

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping. Consumers may become much more concerned about size and durability of appliances and furniture. Residents may become more aware of HHW and white goods management and change purchasing attitudes. 	<ul style="list-style-type: none"> Improved service for white goods and large items. Develop special waste days and special depots for multi-family building collection. Make collection drop-off point convenient for all households and/or continue toxic taxi. Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992). 	<ul style="list-style-type: none"> Residents may become more aware of HHW and white goods management and change purchasing attitudes.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • In some instances, has social welfare benefits • May contribute to acceptance of using repaired/second hand items rather than buying new products • Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness; and provide communal garage sales, flea markets, bazaars, etc. 	<ul style="list-style-type: none"> • Provide incentives for establishing reuse centres and for holding "garage" sales. 	<ul style="list-style-type: none"> • In some instances, has social welfare benefits • Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products • Increased appeal and household economic benefits with future demographic changes may contribute to neighbourhood cohesiveness through communal garage sales, flea markets, bazaars, etc.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Potentially encourages positive changes to conserve and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change Could increase demand for packaging reduction (Enviroinics, 1990). 	<ul style="list-style-type: none"> Expand and refine promotion/education programs to target non-participating groups and to allow for changes in demographic make-up of GTA (Enviroinics, 1990; Morgan-Fraser, 1993). Promotional/Educational programs should be based on successful programs identified in the 3Rs literature (e.g., Folz & Hazlett, 1990). For example, pamphlets and brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many School Boards have environmental education committees and the schools are increasingly being led by Principals & V.P.'s eager to spread an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect; encourages changes to conserve and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change

TABLE H2.6
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact
System : Residential Existing/Committed
Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes Community composting 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRF's 	<ul style="list-style-type: none"> • Direct employment is likely to be maintained at the MRF's and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Direct employment is likely to be maintained at the MRF's and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<p>Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.</p>	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<p>Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p>	<p>A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.</p>	<ul style="list-style-type: none"> Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

TABLE H2.7 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

System : Residential Existing/Committed

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries. 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA (Although the industries could locate elsewhere in North America). 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of benefits is uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<p>Minor direct economic benefits are likely at composting facilities, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA.</p>	<p>Mitigation not required</p>	<p>Minor direct economic benefits are likely at composting facilities, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA.</p>
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<p>Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA.</p>	<p>Mitigation not required</p>	<p>Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the sector. 	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<ul style="list-style-type: none"> Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the sector. 	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Provides a minor short term economic benefit in the construction sector - Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education • 3Rs promotion and education program • Consumer education program	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.	Mitigation not required	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

TABLE H2.8
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Existing/Committed

CRITERION : Potential For Broad Social Impact Indicator : Potential Operational Effects on Institutions, Commercial Enterprises and Industries

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> All landlords may be required to provide space, facilities and staff time to accommodate recycling and may incur additional costs. 	<ul style="list-style-type: none"> Province to consider additional costs for recycling in annual rent review application. 	<ul style="list-style-type: none"> Potential increase in costs for tenants
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products). Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable. 	<ul style="list-style-type: none"> Retail stores could develop buy-back programs for large and bulky items. The consumer would then not be required to disperse items. 	<ul style="list-style-type: none"> In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Promotion and Education <ul style="list-style-type: none"> • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

TABLE H2.9
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Existing/Committed
CRITERION : Distribution of Social Costs and Benefits **Indicator:** Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of some municipalities are provided with white goods and HHW collection, while others are not. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor effect in different level of service for white goods and HHW collection in some municipalities.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Local residents and businesses may receive nuisance effects related to composting for all region residents. 	<ul style="list-style-type: none"> Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/compensation for site related impacts. Address equity issue aspect of the siting process Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Negative distribution effect on some local communities, population groups and industries.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Potential positive effect for lower income groups as more low cost items available and adds potential market for their goods. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Potential positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility. 	<ul style="list-style-type: none"> • Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility. 	<ul style="list-style-type: none"> • Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility.
Residential Promotion and Education <ul style="list-style-type: none"> • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

TABLE H2.10
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Distribution of Social Costs and Benefits

System : Residential Existing/Committed
Indicator: Distribution of Lifestyle Effects

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Scif haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Minor difference in lifestyle effects in multi-family and low density development 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor lifestyle distributional effect between multi-family and low density residents.

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Lifestyle and quality of life of residents affected near composting facilities, while lifestyle of other regional residents not affected.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H2.11
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Distribution of Social Costs and Benefits

System : Residential Existing/Committed
Indicator: Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family unit Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> These initiatives could help maintain the availability of resources for the use/enjoyment of future generations. 	<ul style="list-style-type: none"> The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that an the current generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren. 	<ul style="list-style-type: none"> Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Costly to start-up and establish but may have environmental benefits in the long run (may be better to have the yard waste composted at the household) (Lesnicki, 1993). 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term and may pass on the future generation a better process, so less facility management/decommissioning cost. 	<ul style="list-style-type: none"> Very minor effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect of passing on a healthier environment with resources more available through support for change in behaviour to reduction and reuse.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HIIW Special HIIW drop-off days Toxic Taxi service Mobile HIIW depots 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Costly to start-up and establish but environmentally and possibly economically beneficial in the long run 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term. 	<ul style="list-style-type: none"> Minor positive future generational effect
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future. 	<ul style="list-style-type: none"> Province could consider removing Provincial Sales Tax or other provincial taxes for the sale of used goods 	<ul style="list-style-type: none"> Positive effect through the support for repaired, reused goods, and subsequent reduction of resource use.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. Required support for recycling. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Costly to start-up but environmentally and possibly economically beneficial in the long run. Current generation behaviour paying cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources available.
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available. 	<ul style="list-style-type: none"> Education material could emphasize the benefits to future generation of 3Rs actions today 	<ul style="list-style-type: none"> Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with cleaner environment and more resources available.

TABLE H3.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Direct Cost

CRITERION : Potential Local Community Impacts

Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Effects uncertain with regional recycling legislation Other components, no effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Effects uncertain with regional recycling legislation Other components, no effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> • Curbside collection of leaf and yard waste • Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Household Composting <ul style="list-style-type: none"> • Door-to-door distribution of backyard composters to 80% of single family households • Promotion of vermi-composters to multi-family units • Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> • Special curbside collections of Christmas trees • Special and weekly curbside collections of white goods • Drop-off depots for white goods • Special curbside collection for bulky items • Permanent drop-off depot for HHW • Special HHW drop-off days • Toxic Taxi service • Mobile HHW depots 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood - health concerns (Morgan-Frazer, 1993; Lesnicki, 1993; Scott, 1993; Dale, 1993; Cuthill and Taylor, 1993). Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993). Possible displacement of residents from the siting of a new facility. Potential for odour and vermin problems at community composting facilities. 	<ul style="list-style-type: none"> Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects. Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing nuisance and litter. State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993). As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale. Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Mariato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). 	<ul style="list-style-type: none"> Possible displacement of residents from the siting of a new facility. Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds, vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management. Potential for odour and vermin problems at community composting facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued) <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).	
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Traffic concerns Visual effect of large bins in plazas Centres may not be desirable in all areas due to stigma 	<ul style="list-style-type: none"> Locate Reuse Centres in areas of compatible land use 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - childrens safety - property devaluation - illegal dumping at centre Possible displacement of residents from the siting of a new facility. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in 'areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere. Local residents should be on a monitoring/ management committees. Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Public consultation program established with local residents to ensure all concerns and effects are addressed. 	<ul style="list-style-type: none"> Possible displacement of residents from the siting of a new facility. Minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near the facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> - Drop-off depot for dry recyclable - Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> - Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre - Possible displacement from siting of new facilities. 	<ul style="list-style-type: none"> - Mitigation will need to encompass proper siting and management. - Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage. - Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) - Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots/transfer stations, storage will be required elsewhere. 	<ul style="list-style-type: none"> - Potential minor nuisance effects at some facilities. - Possible displacement from siting of new facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on direct cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H3.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

CRITERION : Potential Local Community Impacts

System : Residential Direct Cost

Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	No effect	Mitigation not required	No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Elderly/physically challenged may have difficult time setting out recyclables and compostable material for pick-up and using drop-off facilities. 	<ul style="list-style-type: none"> Provide maximum convenience possible. 	<ul style="list-style-type: none"> Inconveniences for elderly and physically challenged.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Possible occupational safety concerns with drivers and handlers of HHW. 	<ul style="list-style-type: none"> HHW education for drivers and handlers. 	<ul style="list-style-type: none"> Minor possibilities of occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Although the research (Curtis et al., 1991) indicates that properly managed composting produces a safe product, there are: Possible health effects on allergy sufferers, people with respiratory ailments, people with immunodeficiencies. Possible employee health concerns (Taylor, 1993). 	<ul style="list-style-type: none"> Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction. Prudence dictates that employees should practise proper hygiene and wear protective clothing. Health effects monitoring for employees and high-risk residents should be an operational condition. 	<ul style="list-style-type: none"> Employees at compost facilities may be exposed to health and safety hazards. Should be minimized by education. Could be instigated by proper design and control. Potential for health effects (odours) on allergy sufferers, people with immuno deficiencies, etc. Magnitude of effect may be minimized by proper siting considerations of new facilities and proper management.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Food contamination issue and liability concerns of donors (Wrigley, 1993). Positive effect for low-income and disabled groups. Possible transfer of pests in reuse centers, exchange days, etc. 	<ul style="list-style-type: none"> Train food distribution groups in potential contamination/spoilage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials. 	<ul style="list-style-type: none"> No effect
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or expand/improve existing MRFs 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. 	<ul style="list-style-type: none"> Possible employee health/safety concerns should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. 	<ul style="list-style-type: none"> Possible employee health/safety concerns should be minimized by mitigation.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on direct cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H3.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential Local Community Impacts

System : Residential Direct Cost
Indicator: Potential Effects on Community

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Potential for illegal dumping/burning as resistance to direct cost. 	<ul style="list-style-type: none"> Mitigation and enhancement by variable rate schemes, enforcement, expanded 3Rs, etc. 	<ul style="list-style-type: none"> Potential for illegal dumping/burning as resistance to direct cost. Mitigation and enhancement by variable rate schemes, enforcement, expanded 3Rs, etc. should reduce effects.
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Possible increase in community pride from participation. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible increase in community pride from participation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots. 	<ul style="list-style-type: none"> Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them. Assistance in organization of community garage sales, flea markets etc. Enforcement for illegal dumping. 	<ul style="list-style-type: none"> Minor negative community stigma effect on community image from illegal dumping.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Possible stigma effect in some communities. 	<ul style="list-style-type: none"> State-of-the-art odour control should be an operational condition 	<ul style="list-style-type: none"> Possible stigma effect in some communities
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Possible stigma effect in some communities. 	<ul style="list-style-type: none"> Location of the reuse centres in suitable land use area 	<ul style="list-style-type: none"> No effect
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new or improve/expand existing MRF 	<ul style="list-style-type: none"> Possible stigma effect in some communities. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible stigma effect and disruption in some communities. Magnitude of effect dependant on site location and management of the facility.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none">· Promotion/education program on direct cost system· Promotion/education program on source reduction/pre-cycling, reuse and recycling· 3Rs promotion and education program· Consumer education program	<ul style="list-style-type: none">· Possible increase in community pride	<ul style="list-style-type: none">· Mitigation not required	<ul style="list-style-type: none">· Possible increase in community pride

TABLE H3.4
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Direct Cost
CRITERION : Potential Local Community Impacts **Indicator:** Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Possible nuisance effects on community features and businesses from traffic and hauling. 	<ul style="list-style-type: none"> Planning and co-ordination of haulage system to minimally disrupt local community features and businesses. 	<ul style="list-style-type: none"> Possible very minor nuisance effects on community features and businesses from traffic and hauling.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	No effect	Mitigation not required	No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	No effect	Mitigation not required	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma - health concerns (Morgan-Frazer, 1993) (Lesnicki, 1993) (Scott, 1993) (Dale, 1993) (Cuthill and Taylor, 1993). Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993). Possible displacement of businesses and community features from siting of new facility. 	<ul style="list-style-type: none"> Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993). Do not appear to mitigate all of the documented effects. Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, noise and litter. State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993). 	<ul style="list-style-type: none"> Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds, vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management. Possible displacement of community features and businesses from siting of new facility.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor nuisance related effects on neighbouring features and businesses Visual blight/image effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<p>Potential nuisance effects:</p> <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping - stigma <p>Possible displacement of community features and businesses from siting new facilities.</p>	<p>Mitigation will need to encompass proper siting and management.</p> <ul style="list-style-type: none"> Siting: MRFs should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere. Local residents should be on a monitoring/management committee 	<p>Possible displacement of community features and businesses from siting of a new facility.</p> <ul style="list-style-type: none"> Minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near the facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<ul style="list-style-type: none"> Residential Recycling Depots and Transfer Stations Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Nuisance related effects on nearby features and businesses: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping Possible displacement of community features and businesses from siting of new facilities. 	<ul style="list-style-type: none"> Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRF's. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, litter, and possibility of excess storage. Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere. 	<ul style="list-style-type: none"> Minor nuisance effects on community features and businesses at some facilities Possible displacement of community features and businesses from location of new facilities

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none">· Promotion/education program on direct cost system· Promotion/education program on source reduction/pre-cycling, reuse and recycling· 3Rs promotion and education program· Consumer education program	<ul style="list-style-type: none">· No effect	<ul style="list-style-type: none">· Mitigation not required	<ul style="list-style-type: none">· No effect

TABLE H3.5
GENERIC COMPONENTS NET EFFECTS

System : Residential Direct Cost
Indicator: Potential for Lifestyle Changes

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Could potentially support 3Rs by encouraging residents to source separate to reduce the amount of garbage (Enviro-nics, 1990). Could potentially lead to greater "contamination" of recyclables as residents maximize use of 3Rs. 	<ul style="list-style-type: none"> Complement direct cost with timely promotion/education program and public consultation program. 	<ul style="list-style-type: none"> Could support 3Rs by encouraging residents to source separate to reduce the amount of garbage Could lead to greater "contamination" of recyclables as residents maximize use of 3Rs. Complement direct cost with timely promotion/education program and public consultation program.
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride (Spaccarelli, Zollik, and Jason, 1989-90). Bins may attract nuisances if not picked up often. 	<ul style="list-style-type: none"> Ensure convenient location of drop-off point for apartment dwellers. Assistance in the development of 3Rs apartment committees, "Welcome Wagons", etc. Ensure the provision of information and educational services for new residents (Enviro-nics, 1990). This must be a continual effort to address turnover and increase in future densities. Ensure regular pick-up. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Encourages positive local action. Inconvenience and annoyance for a minority of people; (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals). Program may have substantial potential to increase waste diversion (MacLaren, 1990; Environics, 1990). Promotion of vermicomposting in apartments should increase awareness of role of apartment residents in 3Rs and should lead to greater support for and involvement in 3Rs. Potential odour and vermin problems at community composting facility. Residents of apartment buildings may experience an increase in insect and rodents, odour and health concerns. 	<ul style="list-style-type: none"> Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Environics, 1990; MacLaren, 1990; Metropolitan Works Committee, 1992). Target apartments with action Promotion/Education programs and consultation program to maximize participation - modify composting program/components as required. Ongoing education for proper use. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Variety of lifestyle inconveniences.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping. Consumers may become much more concerned about size and durability of appliances and furniture. Residents may become more aware of HHW and white goods management and change purchasing attitudes. 	<ul style="list-style-type: none"> Improved service for white goods and large items Develop special waste days and special depots for multi-family building collection Make collection drop-off point convenient for all households and/or continue toxic taxi Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992). 	<ul style="list-style-type: none"> Residents may become more aware of HHW and white goods management and change purchasing attitudes.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • In some instances, has social welfare benefits. • May contribute to acceptance of using repaired/second hand items rather than buying new products. • Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc. 	<ul style="list-style-type: none"> • Provide incentives for establishing reuse centres and for holding "garage" sales. 	<ul style="list-style-type: none"> • Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products. In some instances, has social welfare benefits. • Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cohesiveness: through communal garage sales, flea markets, bazaars, etc.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new or improve/expand existing MRFs 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Direct Cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Potentially encourages positive changes to conserver and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change. Could increase demand for packaging reduction (Enviro-nics, 1990). 	<ul style="list-style-type: none"> Expand and refine promotion/education programs to target non-participating groups and to allow for changes in demographic make-up of GTA (Enviro-nics, 1990) (Morgan-Fraser, 1993). Promotional/Educational programs should be based on successful programs (e.g., Folz & Hazlett, 1990). For example, pamphlets and brochures (in utility bills, etc.) and community information meetings. The role of the schools could be important, particularly for new Canadians whose children are receiving the only English instruction in the family. Many School Boards have environmental education committees and the schools are increasingly being led by Principals & V.P.'s eager to spread an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect; encourages positive changes to conserver and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change.

TABLE H3.6
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact

System : Residential Direct Cost
Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	No effect	Mitigation not required	No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<p>Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effect is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.</p>	<p>A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.</p>	<p>Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effect is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new or improve/expand existing MRFs 	<ul style="list-style-type: none"> • Direct employment is likely to be maintained at the MRFs and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Direct employment is likely to be maintained at the MRFs and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Minor short-term increase in construction sector employment.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on direct cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserve attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

TABLE H3.7
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Direct Cost

CRITERION : Potential For Broad Social Impact

Indicator: Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Cost savings from a reduction in landfill fees due to reduced volumes. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries. 	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation may raise benefits.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Household Composting</p> <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<p>Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA (Although the industries could locate elsewhere in North America).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnieki and Mercer, 1993).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and effects are uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993). 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and effects are uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and effects are uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector Provides a minor economic benefit in the construction sector 	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<ul style="list-style-type: none"> Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors. Provides a minor economic benefit in the construction sector.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector Provides a minor economic benefit in the sector 	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Provides a minor short term economic benefit in the construction sector Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on direct cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

TABLE H3.8
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Direct Cost

CRITERION : Potential For Broad Social Impact

Indicator: Potential Operational Effects on Institutions, Commercial Enterprises and Industries

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Potential increase in cost for landlords of apartment buildings that have municipal service. 	<ul style="list-style-type: none"> Landlord to work with residents on 3Rs. 	<ul style="list-style-type: none"> Potential increase in costs for landlords of apartment buildings that have municipal service.
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Direct cost system may add costs to landlords. 	<ul style="list-style-type: none"> Province to consider the additional costs for recycling in annual rent review application. 	<ul style="list-style-type: none"> Potential small increase in costs for tenants.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Landlords may be required to provide space and equipment for composters and may experience increased costs associated with insect and rodent control, staff etc. 	<ul style="list-style-type: none"> Landlords to include increase in costs associated with composting services in annual rent review applications. 	<ul style="list-style-type: none"> Potential increase in costs for tenants and landlords
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products). Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable. 	<ul style="list-style-type: none"> Retail stores could develop buy-back programs for large and bulky items. The consumer would then not be required to disperse items. 	<ul style="list-style-type: none"> In the long term, institutions and commercial enterprises may develop programs to "buy back" used white goods.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new or improve/expand existing MRF's 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program on direct cost system • Promotion/education program on source reduction/pre-cycling, reuse and recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

TABLE H3.9
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : CTA

System : Residential Direct Cost

CRITERION : Distribution of Social Costs and Benefits

Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> There could be a negative distribution effect as costs for garbage collection could be proportionally higher for larger families and not affordable for lower-income households. 	<ul style="list-style-type: none"> Advise residents of the reasons for collection once a week (cost savings). Potentially could consider a special direct cost system for larger and low-income families. 	<ul style="list-style-type: none"> There could be a negative distribution effect as costs for garbage collection could be proportionally higher for larger families and not affordable for lower-income households.
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation no required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of some municipalities are provided with white goods and HHW collection, while others are not. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor effect in different level of service for white goods and HHW collection in some municipalities.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics 	<ul style="list-style-type: none"> Local residents and businesses may receive nuisance effects related to composting for all region residents. 	<ul style="list-style-type: none"> Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/ compensation for site related impacts. Address equity issue aspect of the siting process 	<ul style="list-style-type: none"> Negative distribution effect on some local communities, population groups and industries.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Positive effect for lower income groups as more low cost items available and adds potential market for their goods. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new or improve/expand existing MRF 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility 	<ul style="list-style-type: none"> • Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility 	<ul style="list-style-type: none"> • Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> • Potential negative distribution effects on some groups living near facility
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program on direct cost system • Promotion/education program on source reduction/pre-cycling, reuse and recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

TABLE H3.10
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Direct Cost

CRITERION : Distribution of Social Costs and Benefits

Indicator: Distribution of Lifestyle Effects

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Direct Cost system for garbage collection • Curbside collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage • Regional recycling legislation 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Community recycling centres • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated • Engineered recycling depot • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Minor difference in lifestyle effects in multi-family and low density development. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Minor lifestyle distributional effect between multi-family and low density residents.

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Equitable distribution of service 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Equitable distribution of service
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none">• Promotion/education program on direct cost system• Promotion/education program on source reduction/pre-cycling, reuse and recycling• 3Rs promotion and education program• Consumer education program	<ul style="list-style-type: none">• No effect	<ul style="list-style-type: none">• Mitigation not required	<ul style="list-style-type: none">• No effect

TABLE H3.11
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Direct Cost

CRITERION : Distribution of Social Costs and Benefits

Indicator: Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Positive effect through more sustainable use of resources and conservation of the environment. 	<ul style="list-style-type: none"> Continue to promote and educate on 3Rs (Hay, ND; Lesnicki, 1993; Morgan-Fraser, 1993; Watson, 1993). The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that the current generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren. 	<ul style="list-style-type: none"> Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household; mulch leaves and grass branches (Lesnicki, 1993). 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term and may pass on the future generation a better process, so less facility management and decommissioning cost. 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse. 	<ul style="list-style-type: none"> Promotion and education would increase future participation rates (Enviroconics, 1990). 	<ul style="list-style-type: none"> Positive effect of passing on a healthier environment with resources more available through support for change in behaviour to reduction and reuse.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse, and proper disposal. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse, and proper disposal.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Costly to start-up and establish but environmentally and possibly economically beneficial in the long run. 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term. 	<ul style="list-style-type: none"> Minor positive future generational effect.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future. 	<ul style="list-style-type: none"> Province to consider removing Provincial Sales Tax or other provincial taxes for the sale of used goods. 	<ul style="list-style-type: none"> Positive effect through the support for repaired reuse of good, and subsequent reduction of resource use.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new or improve/expand existing MRFs 	<ul style="list-style-type: none"> Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. Required support for recycling. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Costly to start-up but environmentally and possibly economically beneficial in the long run. Current generation behaviour paying cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources available.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Direct Cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available. 	<ul style="list-style-type: none"> Education material could emphasize the benefits to future generation of 3Rs actions today. 	<ul style="list-style-type: none"> Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with cleaner environment and more resources available.

TABLE H4.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Expanded Blue Box

CRITERION : Potential Local Community Impacts

Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Effects uncertain with regional recycling legislation Other components, no effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> odour scavenging animals and birds visual illegal dumping traffic, truck queuing noise child safety property devaluation stigma for neighbourhood health concerns Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993) Possible displacement of residents for the siting of a new facility. Potential for odour and vermin problems at community composting facility. 	<ul style="list-style-type: none"> Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects. Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing nuisance and litter. State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993). As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale. 	<ul style="list-style-type: none"> Possible displacement of residents for the siting of a new facility. Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds, vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management. Potential for odour and vermin problems at community composting facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> - continued Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 		<ul style="list-style-type: none"> Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Proper supervision of community composting 	
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Traffic concerns Visual effect of large bins in plazas Centres may not be desirable in all areas due to stigma. 	<ul style="list-style-type: none"> Locate Reuse Centres in areas of compatible land use. 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - childrens safety - property devaluation - illegal dumping at centre Possible displacement of residents from the siting of a new facility. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: <ul style="list-style-type: none"> heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere. Local residents should be on a monitoring/management committee. 	<ul style="list-style-type: none"> Possible displacement of residents from the siting of a new facility. Minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre Possible displacement for new facilities. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage. Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots/transfer stations, storage will be required elsewhere. 	<ul style="list-style-type: none"> Potential minor nuisance effects at some facilities. Possible displacement for new facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H4.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Expanded Blue Box

CRITERION : Potential Local Community Impacts

Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Elderly and physically challenged may have difficult time setting out recyclable material for pick-up and using drop-off facilities. 	<ul style="list-style-type: none"> Provide maximum convenience possible. 	<ul style="list-style-type: none"> Elderly and physically challenged may have difficult time setting out recyclable material for pick-up and using drop-off facilities.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Possible occupational safety concerns with drivers and handlers of HHW. 	<ul style="list-style-type: none"> HHW education for driver and handlers. 	<ul style="list-style-type: none"> Minor possible occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Although the research (Curtis et al., 1991) indicates that properly managed composting produces a safe product, there are: Possible health effects on allergy sufferers, people with respiratory ailments, people with immuno-deficiencies. Possible employee health concerns (Taylor, 1993). 	<ul style="list-style-type: none"> Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction. Prudence dictates that employees should practise proper hygiene and wear protective clothing. Health effects monitoring for employees and high-risk residents should be an operational condition. 	<ul style="list-style-type: none"> Employees at compost facilities may be exposed to death and safety hazards. Should be minimized by education. Could be mitigated by proper design and control. Potential for health effects (odours) on allergy sufferers, people with immuno-deficiencies, etc. Magnitude of effect may be minimized by proper siting considerations of new facilities and proper management.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Food contamination issue and liability concerns of donors (Wrigley, 1993). Positive effect for low-income and disabled groups. Possible transfer of pests in reuse centers, exchange days, etc. 	<ul style="list-style-type: none"> Train food distribution groups in potential contamination/spillage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials. 	<ul style="list-style-type: none"> No effect
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Possible employee health/safety concerns. 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. 	<ul style="list-style-type: none"> Possible employee health/safety concerns. Should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Possible employee health/safety concerns. 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H4.3
GENERIC COMPONENTS NET EFFECTS

System : Residential Expanded Blue Box
Indicator: Potential Effects on Community

MUNICIPALITY : GTA
CRITERION : Potential Local Community Impacts

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Potential minor traffic inconvenience in communities where materials are sorted at the truck. Potential increase in community pride from participation. 	<ul style="list-style-type: none"> Mitigation to include proper design of haulage system. 	<ul style="list-style-type: none"> Potential minor traffic inconvenience in communities where materials are sorted at the truck. Effect reduced by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots. 	<ul style="list-style-type: none"> Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them. Assistance in organization of community garage sales, flea markets etc. Enforcement for illegal dumping. 	<ul style="list-style-type: none"> Minor negative community stigma effect on community image from illegal dumping.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Possible stigma effect in some communities. 	<ul style="list-style-type: none"> State-of-the-art odour control should be an operational condition. 	<ul style="list-style-type: none"> Possible stigma effect in some communities.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Possible stigma effect in some communities. 	<ul style="list-style-type: none"> Location of the reuse centres in suitable land use area. 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Possible stigma effect in some communities. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible stigma effect and disruption in some communities. Magnitude of effect dependant on site location and management of the facility.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Possible increase in community pride. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible increase in community pride.

TABLE H4.4
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Expanded Blue Box
CRITERION : Potential Local Community Impacts **Indicator:** Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage • Regional recycling legislation 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Expanded Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Drop-off depot for rural households • Community recycling centres • Engineered recycling depot • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated 	<ul style="list-style-type: none"> • Possible nuisance effects on community features and businesses from traffic and hauling. 	<ul style="list-style-type: none"> • Planning and co-ordination of haulage system to minimally disrupt local community features and businesses. 	<ul style="list-style-type: none"> • Possible nuisance effects on community features and businesses from traffic and hauling. Effect reduced by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<p>No effect</p>	<p>Mitigation not required</p>	<p>No effect</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma - health concerns Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993). Possible displacement of businesses and community features for the siting of a new facility. 	<ul style="list-style-type: none"> Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993). Do not appear to mitigate all of the documented effects. Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, noise and litter. State-of-the-art odour control features should be design requirements. People who work at community features and businesses should be on the management/monitoring committees. 	<ul style="list-style-type: none"> Possible displacement of community features and businesses due to siting of new facility. Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds, vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor nuisance related effects on neighbouring features and businesses. Visual blight/image effect. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping Possible displacement of community features and businesses from siting of new facilities. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRFs should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: <ul style="list-style-type: none"> heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere. Local residents should be on a monitoring/management committee. 	<ul style="list-style-type: none"> Possible displacement of community features and businesses from siting of new facilities. Minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near the facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<p>Nuisance effects:</p> <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping <p>Possible displacement of community features and businesses from siting of new facilities.</p>	<p>Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, litter, and possibility of excess storage.</p> <p>Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)</p> <p>Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere.</p>	<ul style="list-style-type: none"> Minor nuisance effects on community features and businesses at some facilities. Possible displacement of community features and businesses from location of new facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H4.5
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Expanded Blue Box
CRITERION : Potential For Broad Social Impact Indicator: Potential for Lifestyle Changes

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Bins may attract nuisances if not picked up often. 	<ul style="list-style-type: none"> Ensure convenient location of drop-off point for apartment dwellers. Assistance in the development of 3Rs apartment committees, "Welcome Wagons", etc. Ensure the provision of information and educational services for new residents (Enviro-nics, 1990). This must be a continual effort to address turnover and increase in future densities. Ensure regular pick-up. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Encourages positive local action. Inconvenience and annoyance for a minority of people (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals). Promotion of vermicomposting in apartments should increase awareness of role of apartment residents in 3Rs and should lead to greater support for and involvement in 3Rs. Residents of apartment buildings may experience and increase in insects and rodents, odour and health concerns. 	<ul style="list-style-type: none"> Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Enviroconics, 1990; Maclaren, 1990; Metropolitan Works Committee, 1992). Target apartments with action Promotion/Education programs and consultation program to maximize participation - modify composting program/components as required. On-going education for proper use. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Supports other 3Rs activities. Variety of lifestyle inconveniences

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping. Consumers may become much more concerned about size and durability of appliances and furniture. Residents may become more aware of HHW and white goods management and change purchasing attitudes. 	<ul style="list-style-type: none"> Improved service for white goods and bulky items. Develop special waste days and special depots for multi-family building collection. Make collection drop-off point convenient for all households and/or continue toxic taxi. Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992). 	<ul style="list-style-type: none"> Residents may become more aware of HHW and white goods management and change purchasing attitudes.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • In some instances, has social welfare benefits. • May contribute to acceptance of using repaired/second hand items rather than buying new products. • Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc. 	<ul style="list-style-type: none"> • Provide incentives for establishing reuse centres and for holding "garage" sales. 	<ul style="list-style-type: none"> • Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products. • In some instances, has social welfare benefits. • Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cohesiveness: through communal garage sales, flea markets, bazaars, etc.
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclables • Depots located at transfer stations 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Potentially encourages positive changes to conserve and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change. Could increase demand for packaging reduction (Enviroconics, 1990). 	<ul style="list-style-type: none"> Expand and refine promotion/education programs to target non-participating groups and to allow for changes in demographic make-up of GTA (Enviroconics, 1990; Morgan-Fraser, 1993). Promotional/Educational programs should be based on successful programs (e.g., Foltz & Hazlett, 1990). For example, pamphlets and brochures (in utility bills, etc.) and community information meetings. The role of the schools could be important, particularly for new Canadians whose children are receiving the only English instruction in the family. Many School Boards have environmental education committees and the schools are increasingly being led by Principals & V.P.'s eager to spread an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect; encourages positive changes to conserve and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change.

TABLE H4.6
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Expanded Blue Box

CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<p>Mitigation not required</p>	<p>No effect</p>
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America. 	<p>A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.</p>	<ul style="list-style-type: none"> Direct employment gains, primarily in low-skill jobs, are likely in recycling industries. Indirect (secondary and tertiary) effects could occur. Magnitude, timing and direction is uncertain. Long term employment gains in recycling industries may be dependent on capturing new markets with expanded Blue Box items.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing, and direction of effects is uncertain. Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing, and direction of effects is uncertain. Minor short-term increase in construction sector employment.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<p>Direct employment is likely to be maintained at the MRF's and in the management of the program.</p> <p>Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.</p> <p>Minor short-term increase in construction sector employment.</p>	<p>Mitigation not required</p>	
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<p>Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment.</p> <p>Minor short-term increase in construction sector employment.</p>	<p>Mitigation not required</p>	<p>Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment.</p> <p>Minor short-term increase in construction sector employment.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

TABLE H4.7
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

System : Residential Expanded Blue Box

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and lead to improved economies of scale for recycling industries. 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation will enhance benefits. Recycling in all multi-family buildings will increase the supply of recyclable material and lead to improved economies of scale for recycling industries.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA (Although the industries could locate elsewhere in North America). 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (IIIW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (IIIW) Special household hazardous waste drop-off days Toxic Taxi service Mobile IIIW depots 	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mereer, 1993).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects are uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Minor direct economic benefits are likely for composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993). 	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<ul style="list-style-type: none"> Minor direct economic benefits are likely for composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects are uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA. 	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects are uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the construction sector. 	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<ul style="list-style-type: none"> Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors. Direct minor positive short-term construction benefits.
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the construction sector. 	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Provides a minor short term economic benefit in the construction sector. Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

TABLE H4.8
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Expanded Blue Box
CRITERION : Potential For Broad Social Impact **Indicator:** Potential Operational Effects on Institutions, Commercial Enterprises and Industries

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> All landlords may be required to provide space, facilities and staff time to accommodate recycling and may incur additional costs. 	<ul style="list-style-type: none"> Province to consider additional costs for recycling in annual rent review. 	<ul style="list-style-type: none"> Potential increase costs for tenants and landlords.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Landlords may be required to provide space and equipment for composters and may experience increased costs associated with insect and rodent control and staff, etc. 	<ul style="list-style-type: none"> Province to consider increase in costs associated with composting services in annual rent review applications. 	<ul style="list-style-type: none"> Potential increase in costs for tenants and landlords.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products). Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable. 	<ul style="list-style-type: none"> Retail stores could develop buy-back programs for large and bulky items. The consumer would then not be required to disperse items. 	<ul style="list-style-type: none"> In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclables • Depots located at transfer stations 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program on Expanded Blue Box program • Promotion/education program on source reduction/ pre-cycling/reuse/recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

TABLE H4.9
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Expanded Blue Box

CRITERION : Distribution of Social Costs and Benefits

Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of some municipalities are provided with white goods and HHW collection, while others are not. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor effect in different level of service for white goods and HHW collection in some municipalities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Local residents and businesses may receive nuisance effects related to composting for all region residents. 	<ul style="list-style-type: none"> Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/compensation for site related impacts. Address equity issue aspect of the siting process 	<ul style="list-style-type: none"> Negative distribution effect on some local communities, population groups and industries.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items available and adds potential market for their goods. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Potential negative distribution effects on some facilities 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some facilities.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Potential negative distribution effects on some facilities. 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> · Promotion/education program on Expanded Blue Box program · Promotion/education program on source reduction/ pre-cycling/reuse/recycling · 3Rs promotion and education program · Consumer education program 	No effect	Mitigation not required	No effect

TABLE H4.10
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Expanded Blue Box

CRITERION : Distribution of Social Costs and Benefits

Indicator: Distribution of Lifestyle Effects

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage • Regional recycling legislation 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Expanded Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Drop-off depot for rural households • Community recycling centres • Engineered recycling depot • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated 	<ul style="list-style-type: none"> • Potential positive effect by increasing opportunity for multi-family dwelling residents to participate (Hay, ND; Envirotronics, 1992). 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Potential positive effect by increasing opportunity for multi-family dwelling residents to participate (Hay, ND; Envirotronics, 1992).

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Equitable distribution of services. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Equitable distribution of services

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H4.11
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Expanded Blue Box
CRITERION : Distribution of Social Costs and Benefits **Indicator:** Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Potential positive effect through more sustainable use of resources and conservation of the environment for recycling. 	<ul style="list-style-type: none"> Continue to promote and educate on 3Rs (Hay, ND; Lesnicki, 1993; Morgan-Fraser, 1993; Watson, 1993). The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that the current generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren. 	<ul style="list-style-type: none"> Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment. Potential positive effect through more sustainable use of resources and conservation of the environment for recycling.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<p>Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household (e.g., mulch leaves and grass branches) (Lesniewski, 1993).</p>	<p>Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term and may pass on the future generation a better process, so less facility management/decommissioning cost.</p>	<p>Uncertain of the long term effect</p>
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<p>Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse.</p>	<p>Promotion and education should increase future participation rates (Envirotonics, 1990).</p>	<p>Positive effect of passing on a healthier environment with resources more available through support for change in behaviour to reduction and reuse.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHIW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHIW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHIW depots 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Costly to start-up and establish but environmentally and possibly economically beneficial in the long run. 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term. 	<ul style="list-style-type: none"> Minor positive future generational effect.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centre Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future. 	<ul style="list-style-type: none"> Province to consider the removal of the Provincial Sales Tax or other provincial taxes for the sale of used goods. 	<ul style="list-style-type: none"> Positive effect through the support for repaired reuse of good, and subsequent reduction of resource use.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. Required support for recycling. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Costly to start-up but environmentally and possibly economically beneficial in the long run. Current generation behaviour paying cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources available.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available. 	<ul style="list-style-type: none"> Education material could emphasize the benefits to future generation of 3Rs actions today. 	<ul style="list-style-type: none"> Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with cleaner environment and more resources available.

TABLE H5.1
GENERIC COMPONENTS NET EFFECTS

System : Residential Wet/Dry
Indicator: Potential Effects on Residents

MUNICIPALITY : GTA
CRITERION : Potential Local Community Impacts

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Effects uncertain with recycling legislation Other components, no effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Effects uncertain with recycling legislation Other components, no effect
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> • Special curbside collections of Christmas trees • Special and weekly curbside collections of white goods • Drop-off depots for white goods • Special curbside collection for bulky items • Permanent drop-off depot for HHW • Special HHW drop-off days • Toxic Taxi service • Mobile HHW depots 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<p>Potential nuisance effects:</p> <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood <p>Health Concerns</p> <p>Odour effects from composting facilities that receive mixed IC&I compost have been significant enough to have facilities closed down (RIS, 1993; J. Scott, 1993; Lannon, 1993). Odour effects from the wet stream of a Wet/Dry system in the Pilot Wet/Dry Project was of too small a scale to comparatively evaluate.</p> <p>As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale with a wet/dry system.</p> <p>Wet/Dry systems can be highly contaminated unless a significant percentage of the population, very diligently source separates the waste. If there is very high contamination, it may lead to increased odour problems and the possibility of health concerns such as increased levels of pathogens and bacteria (e.g. diapers been tossed in with the wet stream).</p>	<p>Composting sites will need to be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter.</p> <p>State-of-the-art odour control features should be design requirements along with proper management of the material and initiatives to reduce the possibility of vectors and vermin. Local residents should be on the management/monitoring committees (Lesnicki, 1993).</p>	<ul style="list-style-type: none"> Potential nuisance effects Possible displacement of residents from the location of a new facility Potential for odour effects health and safety concerns and minor nuisance effects such as traffic, litter, visual, birds, vermin and noise. These effects may be more extensive in wet/dry than in leaf and yard waste composting.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued) <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste Community composting 	<p>Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993).</p> <ul style="list-style-type: none"> Possible displacement of residents from the location of a new facility. 		
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> traffic concerns visual effect of large bins in plazas centres may not be desirable in all areas due to stigma 	<ul style="list-style-type: none"> Locate Reuse Centres in areas of compatible land use 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> New MRF or improve/expand existing MRF's to process larger dry stream of recyclables 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre - odour (due to possibility of contamination of the dry stream) Possible displacement of residents from the siting of a new facility. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: <ul style="list-style-type: none"> heavy truck traffic, noise, visibility, truck queuing, litter, odour, and the possibility of excess storage (Lesnicki, 1993). Management: The facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pest, and excess materials. Many of these effects could potentially be controlled by proper site design and planning (berms, fences, etc.). Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere. Local residents should be on a monitoring/management committee 	<ul style="list-style-type: none"> Possible displacement of residents from the siting of a new facility Potential for odour effects, health and safety concerns, and minor nuisance effects. These effects may be more extensive in a wet/dry system than with other facilities, because of potential for contamination.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre - odour (due to possibility of contamination of the dry stream) Possible displacement of residents from the siting of a new facility 	<p>Mitigation will need to encompass proper siting and management.</p> <p>Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRF's. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, litter, odour and the possibility of excess storage. Facility management will need to control nuisance effects and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.).</p> <p>Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots/transfer stations, storage will be required elsewhere.</p> <p>Odour effects can best be controlled by ensuring a low contamination rate.</p>	<ul style="list-style-type: none"> Potential minor nuisance effects at some facilities Possible displacement of residents from the siting of a new facility

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none">• Promotion/education program for wet/dry system• Promotion/education program for source reduction/pre-cycling, reuse and recycling• 3Rs promotion and education program• Consumer education program	<ul style="list-style-type: none">• No effect	<ul style="list-style-type: none">• Mitigation not required	<ul style="list-style-type: none">• No effect

TABLE H5.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Wet/Dry

CRITERION : Potential Local Community Impacts

Indicator: Potential Effects on special/sensitive groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Wet/Dry collection may seriously effect elderly and disabled populations (mobility impaired) who must move 90 gallon carts in all seasons. Winter may be very problematic due to snow on curbs. They also may have problems cleaning the carts, and with nuisance effects (odour, vermin, etc.) (City of Guelph, 1991). 	<ul style="list-style-type: none"> Mitigation may need to include alternative collection units for these groups 	<ul style="list-style-type: none"> Wet/Dry System may be very difficult for elderly and disabled groups
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Wet/Dry collection may seriously effect elderly and disabled populations (mobility impaired) who must move 90 gallon carts in all seasons. Winter may be very problematic due to snow on curbs. They also may have problems cleaning the carts, and with nuisance effects (odour, vermin, etc.) (City of Guelph, 1991). 	<ul style="list-style-type: none"> Mitigation may need to include alternative collection units for these groups 	<ul style="list-style-type: none"> Wet/Dry System may be very difficult for elderly and disabled groups
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Odour from backyard composters affects owners and/or neighbours Lower participation from the elderly-physically demanding for some 	<ul style="list-style-type: none"> Make information available on maintaining household composters to assist in reducing odour 	<ul style="list-style-type: none"> Nuisance effect associated with odour and physical strain on elderly
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Possible occupational safety concerns with drivers and handlers of HHW 	<ul style="list-style-type: none"> HHW education for drivers and handlers 	<ul style="list-style-type: none"> Minor possible occupational safety concerns with drivers and handlers of HHW

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Although the research (Curtis et al., 1991) indicates that properly managed composting produces a safe product, there are: Possible health effects on allergy sufferers, people with respiratory ailments, people with immuno-deficiencies; possible employee health concerns (Taylor, 1993). Possible negative health effects may be heightened because of the potential for contamination of the "Wet" stream by other materials. Household hazardous wastes and sharps (razors, needles, etc.) may be significant concerns (Taylor, 1993). The actual effects are relatively unknown due to limited North American experience with wet/dry systems. 	<ul style="list-style-type: none"> Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction. Prudence dictates that employees should practise proper hygiene and wear protective clothing Health effects monitoring for employees and high-risk residents should be an operational condition Periodic monitoring of the piles to determine type and extent of contamination 	<ul style="list-style-type: none"> Employees at MRI's and in particular compost facilities may be subjected to a variety of health and safety hazards such as H11W and sharps in "wet" stream. Hazards should be minimized by consultation and education and mitigated by proper design and control. Potential for health effects (odours) or allergy sufferers, people with immuno-deficiencies, etc. from composting facilities.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Food contamination issue and liability concerns of donors (Wrigley, 1993). Positive effect for low-income and disabled groups Possible transfer of pests in reuse centres, exchange days, etc. 	<ul style="list-style-type: none"> Train food distribution groups in potential contamination/spoilage Enact "Good Samaritan" Legislation to absolve donor of responsibility Cleaning and fumigation of materials. 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> New MRF or improve/expand existing MRF's to process larger dry stream of recyclable 	<ul style="list-style-type: none"> Possible employee health/safety concerns due to contamination of the "dry" stream with hazardous materials (sharps, HHW, etc.) (Taylor, 1993). 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. Achieve low contamination rates of streams. 	<ul style="list-style-type: none"> Magnitude of health and safety effects will be dependent on the contamination level of the "dry" stream and appropriate clothing and management for the employees.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Possible employee health/safety concerns due to contamination of the "dry" stream with hazardous materials (sharps, HHW, etc.) (Taylor, 1993). 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. Achieve low contamination rates of streams. 	<ul style="list-style-type: none"> Magnitude of health and safety effects will be dependent on the contamination level of the "dry" stream and appropriate clothing and management for the employees
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H5.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Wet/Dry
CRITERION : Potential Local Community Impacts **Indicator:** Potential Effects on Communities

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Traffic inconveniences are possible due to the wet/dry collection system, and increase in materials being transported. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Traffic inconveniences are possible due to the wet/dry collection system, and increase in materials being transported.
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Potential minor traffic inconvenience in communities when materials are deposited in the truck. Potential for increase in community pride. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Potential minor traffic inconvenience in communities when materials are deposited in the truck. Potential for increase in community pride.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Failure of programs tend to have a negative effect on community image. For example, couches, mattresses in vacant lots. 	<ul style="list-style-type: none"> Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them. Assistance in organization of community garage sales, flea markets, etc. Enforcement for illegal dumping. 	<ul style="list-style-type: none"> Minor negative stigma effect on community image from illegal dumping.
Composting Facilities <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> State-of-the-art odour control should be an operational condition. 	<ul style="list-style-type: none"> Possible stigma effect in some communities. Magnitude of effect dependent on site location and management of the facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Possible stigma effect in some communities 	<ul style="list-style-type: none"> • Location of the reuse centres in suitable land use area. 	<ul style="list-style-type: none"> • No effect
Public MRFs <ul style="list-style-type: none"> • New MRF or improve/expand existing MRFs to process larger dry stream of recyclable 	<ul style="list-style-type: none"> • Possible stigma effect in some communities. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Possible stigma effect in some communities.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program for wet/dry system • Promotion/education program for source reduction/pre-cycling, reuse and recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • Possible increase in community pride. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Possible increase in community pride.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required. 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<p>Potential nuisance effects:</p> <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood <p>Health Concerns</p> <p>Odour effects from composting facilities that receive mixed IC&I compost have been significant enough to have facilities closed down (RIS, 1993; J. Scott, 1993; Lannon, 1993). Odour effects from the wet stream of a Wet/Dry system in the province are relatively unknown. The Guelph Pilot Wet/Dry Project was of too small a scale to comparatively evaluate. As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale with a wet/dry system.</p>	<ul style="list-style-type: none"> Composting sites will need to be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter. State-of-the-art odour control features should be design requirements along with proper management of the material and initiatives to reduce the possibility of vectors and vermin. People at community features and business should be on the management/monitoring committees (Lesnicki, 1993). 	<ul style="list-style-type: none"> Potential nuisance effects Possible displacement of community features and business from the location of a new facility Potential for odour effects health and safety concerns and minor nuisance effects such as traffic, litter, visual, birds, vermin and noise. These effects may be more extensive in wet/dry than in leaf and yard waste composting.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities (continued)</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<p>Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Martiato et al., 1992). However, health effects could be monitored for workers and the neighbouring community features and businesses over an initial period at the required facility (Taylor, 1993).</p> <ul style="list-style-type: none"> Wet/Dry systems can be highly contaminated unless a significant percentage of the population, very diligently source separates the waste. If there is very high contamination, it may lead to increased odour problems and the possibility of health concerns such as increased levels of pathogens and bacteria (e.g. diapers been tossed in with the wet stream). Possible displacement of community features and businesses from the location of a new facility. 		
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor nuisance related effects on neighbouring features and businesses Visual blight/image effect. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> New MRF or improve/expand existing MRF's to process larger dry stream of recyclable 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre - odour (due to possibility of contamination of the dry stream) Possible displacement of community features and businesses from the siting of a new facility 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, odour, and the possibility of excess storage (Lesnicki, 1993). Management: The facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pest, and excess materials. Many of these effects could potentially be controlled by proper site design and planning (berms, fences, etc.). Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere. People at Community features and businesses should be on a monitoring/management committee 	<ul style="list-style-type: none"> Possible displacement of community features and businesses from the siting of a new facility Potential for odour effects, health and safety concerns, and minor nuisance effects. These effects may be more extensive in a wet/dry system than with other facilities, because of potential for contamination.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Nuisance related effects on nearby features and businesses; <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre Possible displacement of community features and businesses from location of new facilities. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRF's. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise litter and possibility of excess storage. Facility management will need to control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots/transfer stations, storage will be required elsewhere. Odour effects can be best controlled by having a low contamination rate. 	<ul style="list-style-type: none"> Minor nuisance effects at some facilities. Possible displacement of community features and businesses from location of new facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H5.5
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Wet/Dry

CRITERION : Potential For Broad Social Impact Indicator: Potential for Lifestyle Change

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
<ul style="list-style-type: none"> Garbage Collection and Disposal Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Potential for a variety of minor lifestyle effects associated with the Wet/Dry bin system. Nuisance effects could include: odour, waste sticking to bins, difficulties associated with cleaning the bins, insects, moving the bins in winter, snowbanks, lack of space for 90 gallon bins, etc. (City of Guelph, 1991). Effects may be greater in high density areas. 	<ul style="list-style-type: none"> Mitigation could include a variety of measures. To control effects associated with waste sticking to bins, the bins could be lined with bags. Optional smaller cans may be needed for the elderly and for those with a lack of space. 	<ul style="list-style-type: none"> Potential for a variety of minor lifestyle inconveniences associated with bins. Effects may be greater in high density areas.

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Potential for a variety of minor lifestyle effects associated with the Wet/Dry bin system. Nuisance effects could include: odour, waste sticking to bins, difficulties associated with cleaning the bins, insects, moving the bins in winter, snowbanks, lack of space for 90 gallon bins, etc. (City of Guelph, 1991). The change from a traditional Blue Box system to Wet/Dry requires residents to significantly change their sorting and recycling behaviour. The Guelph experience tends to demonstrate a positive social and lifestyle effect, people are willing to do and learn more and it has become a source of personal and community pride. 	<ul style="list-style-type: none"> Ensure weekly pick-up. Ensure convenient drop-off locations for apartment dwellers and rural households. Assistance in the development of 3Rs apartment committees, "Welcome Wagons," etc. Ensure the provision of information and educational services for new residents (Envirotonics, 1990). This must be a continual effort to address turnover and increase in densities. 	<ul style="list-style-type: none"> Probably a positive social and lifestyle effect, people willing to do and learn more. Variety of minor lifestyle inconveniences associated with bins. The bins may be too large for some residents to manage during the winter.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Encourages positive local action. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
<p>Residential Household Composting</p> <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Encourages positive local action and increases awareness in community. Inconvenience and annoyance for a minority of people: (e.g., ill-fitting lids, insufficient volumes, pests, lack of space, odours, scavenging animals). Program may have substantial potential to increase waste diversion (Maelaren, 1990; Enviromics, 1990). Potential for odour and vermin problems at composting facility. Residents of apartment buildings may experience an increase in insects and rodents, odour and health concerns. 	<ul style="list-style-type: none"> Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Enviromics 1990; Maclaren, 1990; Metropolitan Works Committee, 1992). Encourage community compost challenges to promote and educate. Ongoing education for proper use. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Supports other 3Rs activities Variety of lifestyle inconveniences

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping. Consumers may become much more concerned about size and durability of appliances and furniture. Residents may become more aware of HHW and white goods management and change purchasing attitudes. 	<ul style="list-style-type: none"> Improved service for white goods and large items. Develop special waste days and special depots for multi-family building collection. Make collection drop-off point convenient for all households and/or continue toxic taxi. Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992). 	<ul style="list-style-type: none"> Residents may become more aware of HHW and white goods management and change purchasing attitudes.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • In some instances, has social welfare benefits • May contribute to acceptance of using repaired/second hand items rather than buying new products • Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness; and encourage communal garage sales, flea markets, bazaars, etc. 	<ul style="list-style-type: none"> • Provide incentives for establishing reuse centres and for holding "garage" sales. • Provide assistance in promoting special goods exchange days 	<ul style="list-style-type: none"> • Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products. • In some instances, has social welfare benefits • Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cohesiveness; through communal garage sales, flea markets, bazaars, etc.
Public MRF's <ul style="list-style-type: none"> • New MRF or improve/expand existing MRF's to process larger dry stream of recyclable 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<p>One of the criticisms of the Wet/Dry System, is that it does not force people to actively think about recycling, reusing or reducing their waste. Promotion of the system may or may not encourage 3Rs thinking and a change in lifestyle. If positive effects are to be achieved, extensive efforts into developing wet/dry promotional/educational programs will be needed.</p>	<ul style="list-style-type: none"> Development of a variety of educational and promotional tools for 3Rs education. Evaluate Guelph's Wet/Dry Education and Promotion Programs to identify key educational elements. 	<p>Potential positive effect: encourages people to participate and understand the system.</p>

TABLE H5.6
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System : Residential Wet/Dry**
CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<p>Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in wet/dry collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effects are uncertain.</p> <p>As recycling becomes more centralized, the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.</p>	<p>A transition to conserver attitudes has major implications for the economy and employees. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and retraining will be key components to help the working population adapt to new and evolving sectors in the "green" economy.</p>	<p>Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in wet/dry collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effects are uncertain. As recycling becomes more centralized, the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.</p> <p>Mitigation should enhance benefits.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	No effect	Mitigation not required	No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters and in the management of the program. Magnitude, timing and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment.	A transition to conserver attitudes has major implications for the economy and employees. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and retraining will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters and in the management of the program. Magnitude, timing and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment. Mitigation should enhance benefits.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and retraining will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor increase in low skill jobs. Minor short-term increase in construction sector employment. Long term effects uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Minor increase in low skill jobs • Long term effects uncertain
Public MRFs <ul style="list-style-type: none"> • New MRF or improve/expand existing MRFs to process larger dry stream of recyclable 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at the MRFs and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Short term increase in low skill jobs • Minor short-term increase in construction sector employment. • Long term effects uncertain
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Minor short term increase in low skill jobs. • Minor short-term increase in construction sector employment. • Long term effects uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and retraining will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor short term employment gains. Long term effects uncertain.

TABLE H5.7
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<p>Direct economic benefits are likely in recycling industries, and in wet/dry collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<p>Direct economic benefits are likely in recycling industries, and in wet/dry collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation should enhance benefits.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (although the industries could locate elsewhere in North America). 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (although the industries could locate elsewhere in North America).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Direct economic benefits are likely at composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Provides a minor economic benefit in the construction sector. 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Direct economic benefits are likely at composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Provides a minor economic benefit in the construction sector.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> New MRF or improve/expand existing MRFs to process larger dry stream of recyclable 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the construction sector. 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors. Provides a minor short term economic benefit in the construction sector.
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the construction sector. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors. Provides a minor short term economic benefit in the construction sector.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor direct economic benefits are likely in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

TABLE H5.8
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Wet/Dry

CRITERION : Potential For Broad Social Impact **Indicator:** Potential Operational Effects on Institutions, Commercial Enterprises and Industry

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> All landlords may be required to provide space, facilities, and staff time to accommodate the Wet/Dry System. They may incur additional costs. Effects uncertain with recycling legislation. 	<ul style="list-style-type: none"> Province to consider amending annual rent review applications to reflect potentially increased costs to landlords. 	<ul style="list-style-type: none"> Potential increased costs for tenants Effects uncertain with material banning legislation
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> All landlords may be required to provide space, facilities, and staff time to accommodate the Wet/Dry System. They may also incur additional costs. 	<ul style="list-style-type: none"> Landlords to include additional costs for recycling in annual rent review application. 	<ul style="list-style-type: none"> Potential increased costs for tenants and landlords.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Landlords may be required to provide space and equipment for composters and may experience increased costs associate with insect and rodent control, staff, etc. 	<ul style="list-style-type: none"> Province to consider additional costs for recycling in annual rent review application. 	<ul style="list-style-type: none"> Potential increase in costs for tenants and landlords
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products). Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable. Small businesses may benefit from use of the mobile HHW depots. 	<ul style="list-style-type: none"> Retails stores could develop buy-back programs for large and bulky items. The consumer would then not be required to disperse items. Allow small businesses to use mobile HHW at cost. 	<ul style="list-style-type: none"> In the long-term institutions and commercial enterprises may develop programs to "buy back" used white goods. Increased diversion of hazardous waste from small business.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centre Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Public MRFs <ul style="list-style-type: none"> New MRF or improve/expand existing MRFs to process larger dry stream of recyclable 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> · Promotion/education program for wet/dry system · Promotion/education program for source reduction/pre-cycling, reuse and recycling · 3Rs promotion and education program · Consumer education program 	<ul style="list-style-type: none"> · No effect 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · No effect

TABLE H5.9
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Wet/Dry

CRITERION : Distribution of Social Costs and Benefits

Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	No effect	Mitigation not required	No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	Residents of some municipalities are provided with white goods and HHW collection, while others are not.	Mitigation not required	Minor effect in different level of service for white goods and HHW collection in some municipalities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Local residents and businesses may receive nuisance effects related to composting for all region residents. 	<ul style="list-style-type: none"> Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/compensation for site related impacts. Address equity issue aspect of the siting process. 	<ul style="list-style-type: none"> Negative distribution effects on some local communities, population groups, and industries.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items available and adds potential market for their goods. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRF's <ul style="list-style-type: none"> New MRF or improve/expand existing MRF to process larger dry stream of recyclable 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near facility

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H5.10
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Wet/Dry
CRITERION : Distribution of Social Costs and Benefits **Indicator:** Distribution of Lifestyle Effects

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Potential for minor difference in lifestyle effects between high density and low density developments. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Potential for minor difference in lifestyle effects between high density and low density developments.
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Potential for minor difference in lifestyle effects between high density and low density developments. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Potential for minor difference in lifestyle effects between high density and low density developments.
Residential Leaf and Yard Waste Composting <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Equitable distribution of services 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Equitable distribution of services
Other Residential Waste Diversion (HHW, Toxic Taxi, White Goods, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Composting Facilities <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres <ul style="list-style-type: none"> · Municipal reuse centre · Private reuse centre · Non-profit reuse centre · Charitable reuse centres · Food reuse organization · Special goods exchange days 	<ul style="list-style-type: none"> · No effect 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · No effect
Public MRFs <ul style="list-style-type: none"> · New MRF or improve/expand existing MRFs to process larger dry stream of recyclable 	<ul style="list-style-type: none"> · No effect 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> · Drop-off depot for dry recyclable · Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> · No effect 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · No effect
Residential Promotion and Education <ul style="list-style-type: none"> · Promotion/education program for wet/dry system · Promotion/education program for source reduction/pre-cycling, reuse and recycling · 3Rs promotion and education program · Consumer education program 	<ul style="list-style-type: none"> · No effect 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · No effect

TABLE H5.11
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

CRITERION : Distribution of Social Costs and Benefits **System : Residential Wet/Dry**
Indicator: Potential Future Generational Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Potentially positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment. 	<ul style="list-style-type: none"> Continue to promote and educate on 3Rs (Hay, ND; Lesnicki, 1993; Morgan-Fraser, 1993; Watson, 1993). The likely overall benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that an entire generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren. 	<ul style="list-style-type: none"> Potentially positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<p>Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household (e.g., much leaves, grass and branches).</p>	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping, and composting. Could reduce the need for collection costs and cost for large, centralized facilities in the long term and may pass on to future generations a better process (less facility management/decommissioning cost). 	<p>Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household (e.g., much leaves, grass and branches).</p>
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and cooperative housing complexes Vermi-composting for multi-family households 	<p>Moderately costly to start-up and establish but environmentally beneficial to future generations due to a support for a change in behaviour to reduction and reuse.</p>	<ul style="list-style-type: none"> Promotion and education should increase future participation rate (Enviro-nics, 1990). 	<p>Positive effect of passing on a healthier environment with resources more available, through support for change in behaviour to reduction and reuse.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Costly to start-up and establish but environmentally and possibly economically beneficial in the long run. 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term. 	<ul style="list-style-type: none"> Minor positive future generational effect
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Should encourage/support repair and reuse of white goods, etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future. 	<ul style="list-style-type: none"> Province to consider removing Provincial Sales Tax or other provincial taxes for the sale of used goods. 	<ul style="list-style-type: none"> Positive effect through the support for repaired and reused goods and subsequent reduction of resource use.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> New MRF or improve/expand existing MRFs to process larger dry stream of recyclable 	<ul style="list-style-type: none"> Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future with cleaner environment and more resources available.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available. 	<ul style="list-style-type: none"> Education material could emphasize the benefits to future generation of 3Rs actions today. 	<ul style="list-style-type: none"> Positive effects in changing current attitudes and behaviour to a more sustainable society, which should leave future with cleaner environment and more resources available.

TABLE H6.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential Local Community Impacts

System : Residential Mixed Waste Processing
Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside Collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units in three streams • Self haul of garbage • Regional recycling legislation • Drop-off depot for rural households 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Community recycling centres • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated • Drop-off depot for rural households 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> • Curbside collection of leaf and yard waste • Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood - Health concerns Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993). These effects may be much more extensive with a mixed waste system. Possible displacement of residents for the location of a new facility. 	<p>Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems.</p> <p>MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects.</p> <ul style="list-style-type: none"> Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing nuisance and litter. State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993). As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale. Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). 	<ul style="list-style-type: none"> Possible displacement of residents for the location of a new facility. Potential for significant odour effect from Mixed Waste Processing and Composting facility. Virtually all plants in the US have significant odour problems that have led to their permanent or temporary closure. May be difficult to site. Mitigation measures may have only a limited effect.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued) <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).	
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> traffic concerns visual effect of large bins in plazas 	Locate Reuse Centres in areas of compatible land use.	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - children safety - property devaluation - illegal dumping at centre Possible displacement of residents from the siting of a new facility. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere. Local residents should be on a monitoring/ management committee. 	<ul style="list-style-type: none"> Possible displacement of residents from the siting of a new facility. Nuisance effects from traffic litter and noise. Magnitude of effects may be minimized by proper siting considerations of new facilities and proper management.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre Possible displacement for new facilities 	<p>Mitigation will need to encompass proper siting and management.</p> <p>Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage.</p> <p>Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)</p> <p>Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots/transfer stations, storage will be required elsewhere.</p>	<ul style="list-style-type: none"> Potential minor nuisance effects at some facilities Possible displacement for new facilities
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<p>Mitigation not required</p>	<ul style="list-style-type: none"> No effect

TABLE H6.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential Local Community Impacts

System : Residential Mixed Waste Processing
Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Elderly/physically challenged may have difficulty carrying/lifting blue box or dropping off at depots. 	<ul style="list-style-type: none"> Provide maximum convenience possible. 	<ul style="list-style-type: none"> Greater inconvenience for elderly and physically challenged.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> • Curbside collection of leaf and yard waste • Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Household Composting <ul style="list-style-type: none"> • Door-to-door distribution of backyard composters to 80% of single family households • Large 3-bin composting units distributed to apartment and co-operative housing complexes • Vermi-composting for multi-family households 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> • Special curbside collections of Christmas trees • Special and weekly curbside collections of white goods • Drop-off depots for white goods • Special curbside collection for bulky items • Permanent drop-off depot for HHW • Special HHW drop-off days • Toxic Taxi service • Mobile HHW depots 	<ul style="list-style-type: none"> • Possible occupational safety concerns with drivers and handlers of HHW. 	<ul style="list-style-type: none"> • HHW education for driver/handlers 	<ul style="list-style-type: none"> • Minor possible occupational safety concerns with drivers and handlers of HHW

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting centre 	<ul style="list-style-type: none"> Although the research (Curtis et al., 1991) indicates that properly managed composting produces a safe product, there are: Possible important health effects on allergy sufferers, people with respiratory ailments, people with immuno-deficiencies because of mixed waste processing facility. Possible employee health concerns (Taylor, 1993) associated with mixed waste processing. 	<ul style="list-style-type: none"> Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction. Prudence dictates that employees should practise proper hygiene and wear protective clothing. Health effects monitoring for employees and high-risk residents should be an operational condition. 	<ul style="list-style-type: none"> Potential for significant nuisance and health effect from mixed waste processing and composting facility on allergy sufferers, people with immuno deficiencies, etc. Potential for health effects on allergy sufferers, people with immuno deficiencies, etc. from composting. Employees at MWPC and compost facilities may be subjected to a variety of health and safety hazards. Possibility of significant effects on employees at MWPC facility.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Food contamination issue and liability concerns of donors (Wrigley, 1993). Positive effect for low-income and disabled groups Possible transfer of pests in reuse centers, exchange days 	<ul style="list-style-type: none"> Train food distribution groups in potential contamination/spoilage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials. 	<ul style="list-style-type: none"> No effect
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. 	<ul style="list-style-type: none"> Possible employee health/safety concerns. Should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Possible employee health/safety concerns 	<ul style="list-style-type: none"> Educate/train employees on health and safety hazards and precautions. 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

TABLE H6.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential Local Community Impacts

System : Residential Mixed Waste Processing
Indicator: Potential Effects on Community

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside Collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage • Regional recycling legislation • Drop-off depot for rural households 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Community recycling centres • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated • Engineered recycling depot • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Minor traffic inconvenience in communities where materials are sorted at the truck • Possible increase in community pride 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Minor traffic inconvenience in communities where materials are sorted at the truck • Possible increase in community pride

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots. 	<ul style="list-style-type: none"> Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them. Assistance in organization of community garage sales, flea markets etc. Enforcement for illegal dumping 	<ul style="list-style-type: none"> Minor negative community stigma effect on community image from illegal dumping

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> State-of-the-art odour control should be an operational condition 	<ul style="list-style-type: none"> Possible stigma effect in some communities
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> Location of the reuse centres in suitable land use area 	<ul style="list-style-type: none"> No effect
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Possible stigma effect in some communities 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible stigma effect and disruption in some communities. Magnitude of effect dependant on site location and management of the facility.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none">· Promotion/education program for source reduction/pre-cycling, reuse and recycling· 3Rs promotion and education program· Consumer education program	<ul style="list-style-type: none">· Possible increase in community pride	<ul style="list-style-type: none">· Mitigation not required	<ul style="list-style-type: none">· Possible increase in community pride

TABLE H6.4
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Mixed Waste Processing
CRITERION : Potential Local Community Impacts **Indicator:** Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside Collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage • Regional recycling legislation • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Possible nuisance effects on community features and businesses from traffic and hauling. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Possible minor nuisance effects on community features and businesses from traffic and hauling.
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Community recycling centres • Recycling at all multi-family buildings of greater than units • Blue Box recycling mandated • Engineered recycling depot • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Possible nuisance effects on community features and businesses from traffic and hauling. 	<ul style="list-style-type: none"> • Planning and co-ordination of haulage system to minimally disrupt local community features and businesses. 	<ul style="list-style-type: none"> • Possible minor nuisance effects on community features and businesses from traffic and hauling.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - odour - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma - health concerns Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993; J. Scott, 1993). These effects may be much more significant in a mixed waste system. Possible displacement of businesses and community features from the siting of new facility. 	<ul style="list-style-type: none"> Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems. MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects. Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, noise and litter. State-of-the-art odour control features should be design requirements. People who work at local businesses should be on the management/monitoring committees (Lesnicki, 1993). 	<ul style="list-style-type: none"> Potential for significant odour effect from Mixed Waste Processing and Composting facility. Virtually all plants in the US have significant odour problems that have led to their permanent or temporary closure. May be difficult to site. Mitigation measures may have only a limited effect. Possible displacement of community features and businesses due to new facility location.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Minor nuisance related effects on neighbouring features and businesses Visual blight/image effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRF's</p> <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Potential nuisance effects: <ul style="list-style-type: none"> - litter - visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre Possible displacement of community features and businesses from siting of a new facility. 	<ul style="list-style-type: none"> Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.). Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere. People who work in local business should be on a monitoring/ management committee. Establish a consultant program with business and feature operations near the facility. If required establish a liaison committee. Some effects likely to be mitigated over time due to greater familiarity with affects and mitigation (e.g. improvements to siting design, operations and technology). 	<ul style="list-style-type: none"> Nuisance effects from traffic litter and noise. Magnitude of effects may be minimized by proper siting considerations of new facilities and proper management. Possible displacement of community features and businesses from the siting of a new facility.

TABLE H6.5
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Mixed Waste Processing

CRITERION : Potential For Broad Social Impact Indicator: Potential for Lifestyle Changes

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. However, the mixed waste processing component may have a negative effect because some people may not perceive a need for source separation. It may lead to counter-productive attitudes. Bins may attract nuisances if not picked up often. 	<ul style="list-style-type: none"> Ensure convenient location of drop-off point for apartment dwellers. Assistance in the development of 3Rs apartment committees, "Welcome Wagons", etc. Ensure the provision of information and educational services for new residents (Envirovices, 1990). This must be a continual effort to address turnover and increase in future densities. Ensure regular pick-up. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. However, the mixed waste processing component may have a negative effect because some people may not perceive a need for source separation. It may lead to counter-productive attitudes.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Encourages positive local action. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Encourages positive local action. Inconvenience and annoyance for a minority of people: (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals). Program may have substantial potential to increase waste diversion (MacLaren, 1990; Envirionics, 1990). Promotion of vermicomposting in apartments should increase awareness of role of apartment residents in 3Rs. and should lead to greater support for and involvement in 3Rs. Potential for odour and vermin problems at community composting facility. Residents of apartment buildings may experience an increase in insects and rodents, odour and health concerns. 	<ul style="list-style-type: none"> Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Envirionics, 1990; MacLaren, 1990; Metropolitan Works Committee, 1992). Target apartments with action Promotion/Education programs and consultation program to maximize participation - modify composting program/components as required. On-going education for proper use. 	<ul style="list-style-type: none"> Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Supports other 3Rs activities. Variety of lifestyle inconveniences.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping. Consumers may become much more concerned about size and durability of appliances and furniture. Residents may become more aware of HHW and white goods management and change purchasing attitudes. 	<ul style="list-style-type: none"> Improved service for white goods and large items. Develop special waste days and special depots for multi-family building collection. Make collection drop-off point convenient for all households and/or continue toxic taxi. Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992). 	<ul style="list-style-type: none"> Residents may become more aware of HHW and white goods management and change purchasing attitudes.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centres • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • In some instances, has social welfare benefits. • May contribute to acceptance of using repaired/second hand items rather than buying new products. • Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc. 	<ul style="list-style-type: none"> • Provide incentives for establishing reuse centres and for holding "garage" sales. 	<ul style="list-style-type: none"> • Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products • In some instances, has social welfare benefits. • Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cohesiveness: through communal garage sales, flea markets, bazaars, etc.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclables • Depots located at transfer stations 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Potentially encourages positive changes to conserver and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change. Could increase demand for packaging reduction (Enviroconics, 1990). 	<ul style="list-style-type: none"> Expand and refine promotion/education programs to target non-participating groups and to allow for changes in demographic make-up of GTA (Enviroconics, 1990; Morgan-Fraser, 1993). Promotional/Educational programs should be based on successful programs (e.g., Foltz & Hazlett, 1990). For example, pamphlets and brochures (in utility bills, etc.) and community information meetings. The role of the schools could be important, particularly for new Canadians whose children are receiving the only English instruction in the family. Many School Boards have environmental education committees and the schools are increasingly being led by Principals & V.P.'s eager to spread an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect; encourages positive changes to conserver and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change.

TABLE H6.6
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Mixed Waste Processing

CRITERION :

Potential For Broad Social Impact Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America. Mitigation should enhance benefits.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Magnitude, timing and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Magnitude, timing and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<ul style="list-style-type: none"> • Direct employment is likely to be maintained at the MRF's and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Direct employment is likely to be maintained at the MRF's and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. • Minor short-term increase in construction sector employment.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclables • Depots located at transfer stations 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. • Minor short-term increase in construction sector employment. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. • Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects.	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. 	<ul style="list-style-type: none"> A transition to conserve attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy. 	<ul style="list-style-type: none"> Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

TABLE H6.7
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Mixed Waste Processing

CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries. 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation to enhance benefits. Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	No effect	Mitigation not required	No effect
Residential Household Composting Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and cooperative housing complexes Vermi-composting for multi-family households	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA (Although the industries could locate elsewhere in North America).	Mitigation not required	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain.

TABLE H6.7
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries. 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation to enhance benefits. Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	No effect	Mitigation not required	No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and cooperative housing complexes Vermi-composting for multi-family households 	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA (Although the industries could locate elsewhere in North America).	Mitigation not required	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GFA (Lesnicki and Mercer, 1993).</p>	<p>The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.</p>	<p>Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<p>Direct economic benefits at these facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).</p>	<p>Mitigation not required</p>	<p>Direct economic benefits at these facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).</p>
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<p>Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA.</p>	<p>Mitigation not required</p>	<p>Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Public MRFs</p> <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the construction sector. 	<ul style="list-style-type: none"> The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally. 	<ul style="list-style-type: none"> Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors. Provides a minor economic benefit in the construction sector.
<p>Residential Recycling Depots and Transfer Stations</p> <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Provides the infrastructural support for recycling materials by the private and public sector. Provides a minor economic benefit in the sector. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Provides a minor short term economic benefit in the construction sector. Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.	Mitigation not required	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

TABLE H6.8
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential For Broad Social Impact

System : Residential Mixed Waste Processing
Indicator: Potential Operational Effects on Institutions, Commercial Enterprises and Industries

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> All landlords may be required to provide space, facilities and staff time to accommodate recycling and may incur additional costs. 	<ul style="list-style-type: none"> Landlords may need to include additional costs for recycling in annual rent review application. 	<ul style="list-style-type: none"> Potential increase in costs for tenants and landlords.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Landlords may be required to provide space and equipment for composters and may experience increased costs associated with insect and rodent control, staff etc. 	<ul style="list-style-type: none"> Province to consider increase in costs associated with composting services in annual rent review applications 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products). Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable. 	<ul style="list-style-type: none"> Retail stores could develop buy-back programs for large and bulky items. The consumer would then not be required to disperse items. 	<ul style="list-style-type: none"> In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclables • Depots located at transfer stations 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program for source reduction/pre-cycling, reuse and recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

TABLE H6.9
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

CRITERION : Distribution of Social Costs and Benefits

System : Residential Mixed Waste Processing

Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside Collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage • Regional recycling legislation • Drop-off depot for rural households 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Community recycling centres • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated • Engineered recycling depot • Drop-off depot for rural households 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of some municipalities are provided with white goods and HHW collection, while others are not. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor effect in different level of service for white goods and HHW collection in some municipalities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Local residents and businesses may receive nuisance effects related to composting for all region residents. 	<ul style="list-style-type: none"> Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/compensation for site related impacts. Address equity issue aspect of the siting process. 	<ul style="list-style-type: none"> Negative distribution effect on some local communities, population groups and industries.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items available and adds potential market for their goods. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near the facility. 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near the facility.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near the facility. 	<ul style="list-style-type: none"> Mitigation as "Potential Effects on Residents" 	<ul style="list-style-type: none"> Potential negative distribution effects on some groups living near the facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none">Promotion/education program for source reduction/pre-cycling, reuse and recycling3Rs promotion and education programConsumer education program	No effect	Mitigation not required	No effect

TABLE H6.10
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Mixed Waste Processing

CRITERION : Distribution of Social Costs and Benefits

Indicator: Distribution of Lifestyle Effects

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Popular and environmentally beneficial, lifestyle affected throughout the region (Hay, ND; Enviroincs, 1990). Minor difference in lifestyle effects in multi-family and low density development. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Minor lifestyle distributional effect between multi-family and low density residents and rural and urban resident.

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.	Mitigation not required	Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.
Residential Household Composting Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households	Equitable distribution of services.	Mitigation not required	Equitable distribution of services.

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> • Special curbside collections of Christmas trees • Special and weekly curbside collections of white goods • Drop-off depots for white goods • Special curbside collection for bulky items • Permanent drop-off depot for HHW • Special HHW drop-off days • Toxic Taxi service • Mobile HHW depots 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
<p>Composting Facilities</p> <ul style="list-style-type: none"> • Centralized windrow composting of leaf and yard waste • In-vessel composting of source separated organics • New mixed waste processing and composting facility 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables	No effect	Mitigation not required	No effect
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables	No effect noted	Mitigation not required	No effect
Depots located at transfer stations			
Residential Promotion and Education			
Promotion/education program for source reduction/pre-cycling, reuse and recycling	No effect	Mitigation not required	No effect
3Rs promotion and education program			
Consumer education program			

TABLE H6.11
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Mixed Waste Processing
CRITERION : Distribution of Social Costs and Benefits **Indicator:** Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside Collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage • Regional recycling legislation • Drop-off depot for rural households 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Community recycling centres • Recycling at all multi-family buildings of greater than 6 units • Blue Box recycling mandated • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Costly to start-up and to establish because of market development, but over the long run this initiative could lead to a greater rationalization of resources and conservation of ecological capital. • This could help maintain the availability of resources for the use/enjoyment of future generations. 	<ul style="list-style-type: none"> • Continue to promote and educate on 3Rs (Hay, ND; Lesnicki, 1993; Morgan-Fraser, 1993; Watson, 1993). • The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that this generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren. 	<ul style="list-style-type: none"> • Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Leaf and Yard Waste Collection</p> <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Costly to start-up and establish but may have environmental benefits in the long run. Uncertain (may be better to have the yard waste composted at the household, e.g., mulch leaves and grass branches) (Lesnicki, 1993). 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term and may pass on the future generation a better process, so less facility management/decommissioning cost. 	<ul style="list-style-type: none"> Long term effect uncertain.
<p>Residential Household Composting</p> <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse. 	<ul style="list-style-type: none"> Promotion and education should increase future participation. 	<ul style="list-style-type: none"> Positive effect of passing on a healthier environment with resources more available through support for change in behaviour to reduction and reuse.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Costly to start-up and establish but environmentally and possibly economically beneficial in the long run. 	<ul style="list-style-type: none"> Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term. 	<ul style="list-style-type: none"> Minor positive future generational effects.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future. 	<ul style="list-style-type: none"> Province to consider removing Provincial Sales Tax or other provincial taxes for the sale of used goods. 	<ul style="list-style-type: none"> Positive effect through the support for repaired reuse of good, and subsequent reduction of resource use.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. Required support for recycling. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations 	<ul style="list-style-type: none"> Costly to start-up but environmentally and possibly economically beneficial in the long run. Current generation behaviour paying cost for altering behaviour to a more sustainable society. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources available.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program 	<ul style="list-style-type: none"> Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available. 	<ul style="list-style-type: none"> Education material could emphasize the benefits to future generation of 3Rs actions today. 	<ul style="list-style-type: none"> Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with cleaner environment and more resources available.

TABLE H7.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

CRITERION : Social Acceptability

System : Residential Existing

Indicator : Participation in 3R's by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> High participation rates but vary with municipality (Enviroconics, 1990; Hay,ND) Greatest participation by single family residences (Gale, 1990) (Enviroconics, 1990)(Hay,ND) Some groups (e.g. lower SES) and households less accepting/willing to participate (Lansana, 1992; Howenstine, 1993; Everett et al, 1992)(Enviroconics, 1990)(Hay, ND) Participation may be limited by a lack of opportunities for multi-family residents (less participation by high rise, high and medium density multi-family buildings) 	<ul style="list-style-type: none"> Additional measures (e.g. block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al, 1992; Howenstine, 1993; Lansana, 1991; Hager, 1992) Modify program as required to address concerns of elderly (Bagby, 1993) 	<ul style="list-style-type: none"> Participation may be limited by a lack of opportunities for multi-family residents (less participation by high rise, high and medium density multi-family buildings)

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up 	<ul style="list-style-type: none"> Spring, Summer, and Fall reminders to low density residences and apartment superintendents 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Residential composting participation is possible with those who have the facilities (Envirotronics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them. 	<ul style="list-style-type: none"> Continue subsidies of units, provide home delivery and provide multi-lingual instruction for household composters 	<ul style="list-style-type: none"> Participation by those who have backyards
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of municipalities without white goods collection may not be willing/able to drop off white goods Greater participation by individuals in pick up services (eg, toxic taxis, mobile HHW depots, white goods collection) 	<ul style="list-style-type: none"> Provide call in pick up service for white goods and bulky items 	<ul style="list-style-type: none"> Increased participation by individuals; higher cost for municipalities for 3Rs

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> In short term, increasing awareness of availability of reusable goods Longer term demand for goods uncertain 	<ul style="list-style-type: none"> Support with promotion/education program emphasizing the benefits of reuse Province to consider tax reduction (sales or income tax) for the purchase of used goods 	<ul style="list-style-type: none"> Short term growth in shopping at reuse centres. Longer term uncertain.
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education 3Rs promotion and education program Consumer education program	Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc is that people want more information (Envirotronics, 1990; Watson, 1993)	Expand and refine promotion/education programs as required based on changing demographics, ethnic/language groups (Bagby, Diangson, and Patterson, 1992) Promotional/Education programs should be based on the successful programs identified in the 3Rs literature (Folz and Hazlet, 1990) For example, pamphlets & brochures (in utility bills, etc) and community information meetings The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message	Potentially positive effect through increased participation in 3Rs activities

TABLE H7.2
GENERIC COMPONENTS NET EFFECTS

System : Residential Existing
Indicator: Attitudes and perception to 3Rs Activities

MUNICIPALITY : GTA
CRITERION : Social Acceptability

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Acceptable for low density development provided source separation and pick-up, etc. is understood and convenient 	<ul style="list-style-type: none"> Continue to support with promotion/education programs Ensure convenience of system to maintain positive attitudes Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes 	<ul style="list-style-type: none"> Positive effect by maintaining or increasing positive attitudes to 3Rs.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection, although there is some for the resident on how/when to place yard waste for pick up 	<ul style="list-style-type: none"> Spring, summer and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> No effect, positive attitudes maintained.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Acceptable for single family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. 	<ul style="list-style-type: none"> Positive attitudes towards composting will be enhanced, provided the nuisance concerns (see Broad Social Impact) are mitigated. 	<ul style="list-style-type: none"> General growth in positive attitudes to 3Rs supported by household composting.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> HHW collection has a positive effect as social awareness is created about household hazardous waste. Could be concerns regarding spills by the toxic taxis, but generally people are familiar with HHW and accepting of its management. Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material. Possible short-term concerns about reductions in white goods collection 	<ul style="list-style-type: none"> Ensure public consultation and participation to address concerns related to HHW. 	<ul style="list-style-type: none"> Potentially a positive attitudinal effect.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. Greater environmental awareness among companies and employees practising composting (e.g. Campbells Soup). 	<ul style="list-style-type: none"> Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities. 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location. 	<ul style="list-style-type: none"> Address nuisance effects at existing facilities 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Encourages positive attitudes and perceptions that the individual/family can contribute to the solution. 	<ul style="list-style-type: none"> Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993) 	<ul style="list-style-type: none"> Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education • 3Rs promotion and education program • Consumer education program	• Increase awareness of the need for and benefit of 3Rs. Will motivate people to participate. • Consumer education will promote changes in product design (durable, repairable) and packaging (reduction and recyclable).	• Expand promotion and education programs.	• Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. Consumer education will promote changes in shopping for changes in product design (durable, repairable) and packaging (reduction and recycle).

TABLE H7.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System : Residential Existing**
CRITERION : Social Acceptability **Indicator: Willingness to Pay**

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> • Curbside collection of residential garbage from single family dwellings • Collection of residential garbage from multi-family units • Self haul of garbage 	<ul style="list-style-type: none"> • No effect 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • No effect
Residential Recycling and Collection <ul style="list-style-type: none"> • Curbside collection of Blue Box materials • Expanding curbside collection • Collection of bins of recyclables from multi-family units • Drop-off depot for multi-family residents not serviced by recycling • Drop-off depot for rural households 	<ul style="list-style-type: none"> • Residents and municipalities are willing to pay part of the cost of operating the collection system. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Residents and municipalities are willing to pay part of the cost of operating the collection system.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> • Curbside collection of leaf and yard waste • Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> • Additional costs appear acceptable to residents. Future questions on the necessity for this service are likely to arise. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Possible future concerns about the cost of leaf and yard waste collection and composting.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost. 	<ul style="list-style-type: none"> Mitigation not required. 	<ul style="list-style-type: none"> Residents likely willing to pay for subsidized composters and to purchase used goods.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Uncertain of the willingness of municipalities to pay for white goods and HHW collection. Municipalities appear willing to pay for depots. 	<ul style="list-style-type: none"> Region/Province to examine product stewardship for white goods Region/Province to examine effectiveness of HHW management, and examine possibilities for joint programs with private sector 	<ul style="list-style-type: none"> Municipalities may be less willing to pay the cost of white goods and HHW pick up.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting 	<ul style="list-style-type: none"> Metro and residents continue to fund the leaf and yard waste composting facilities. 	<ul style="list-style-type: none"> Mitigation not required. 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for new items. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for new items.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<ul style="list-style-type: none"> • Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> • Continue subsidies 	<ul style="list-style-type: none"> • Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> • Continue subsidies 	<ul style="list-style-type: none"> • Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Promotion and Education <ul style="list-style-type: none"> • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • Local government and residents likely to continue to support this activity 	<ul style="list-style-type: none"> • Programs should be linked to a public consultation program to address the specific needs of each region. 	<ul style="list-style-type: none"> • Local government and residents likely to continue to support this activity.

TABLE H8.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

CRITERION : Social Acceptability

System : Residential Existing/Committed

Indicator: Participation in 3R's by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	No effect	Mitigation not required	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> High participation rates but vary with municipality (Enviroics, 1990; Hay, ND). Greatest participation by single family residences (Gale, 1990; Enviroics, 1990; Hay, ND). Some groups (e.g., lower SES) and households less accepting/willing to participate (Lansana, 1992; Howenstein, 1993; Everett et al., 1992; Enviroics, 1990; Hay, ND). With an aging population, the elderly may have some difficulties in participating in the program. Will allow residents of multiple-family residences the opportunity to participate resulting in an overall increase in participation. 	<ul style="list-style-type: none"> Expand recycling and collection service to multi-family buildings and provide at a minimum the same level of convenience as single-family residents. To encourage apartment dwellers to participate use apartment committee and block volunteer approach (Bagby, 1993) and ensure distribution of clear information (Hager, 1992; Spaccarelli, 1990). Work with apartment building owners/managers to develop most appropriate collection system (Von Mirbach, 1993; Hager, 1990). Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al., 1992; Howenstein, 1993; Lansana, 1991; Hager, 1992) Modify program as required to address concerns of elderly (Bagby, 1993). 	<ul style="list-style-type: none"> Greater participation throughout residential sector with largest gains in multi-family groups.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up. Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience. 	<ul style="list-style-type: none"> Spring, Summer and Fall reminders to low density residences and apartment superintendents 	<ul style="list-style-type: none"> General acceptable of collection Drop-off will not be undertaken by many.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Residential composting participation is possible with those who have the facilities (EnviroNics, 1990). It may be limited to physically mobile people with yard space. A high proportion of these with backyard composters use them. Participation in community composting is uncertain. 	<ul style="list-style-type: none"> Continue subsidies of units, provide home delivery and provide multi-lingual instruction for household composters. Provide composting services for residents in multiple-family dwellings and support with promotion/education program. Support community composting with strong education/promotion and back up with proper management and community involvement in operations. 	<ul style="list-style-type: none"> Expanded household composting in low, medium and high density residential areas.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of municipalities without white goods collection may not be willing/able to drop off white goods Greater participation by individuals in pick-up services (eg. toxic taxis, mobile HHW depots, white goods and bulky items collection). 	<ul style="list-style-type: none"> Provide call in pick up service for bulky items and white goods 	<ul style="list-style-type: none"> Increased participation by individuals; higher cost for municipalities for 3Rs.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain. 	<ul style="list-style-type: none"> Support with promotion/education program emphasising the benefits of reuse. Province could consider tax reduction (sales or income tax) for the purchase of used goods. 	<ul style="list-style-type: none"> Short term growth in shopping at reuse centres. Longer term effect uncertain.
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc. is that people want more information (Enviroics, 1990; Watson, 1993). 	<ul style="list-style-type: none"> Expand and refine promotion/education programs as required based on changing demographics, ethnic/language groups (Bagby, Diangson, and Patterson, 1992). Promotion/Education programs should be based on the successful programs identified in the 3Rs literature (Folz and Hazlett, 1990). For example, pamphlets & brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect through increased participation in 3Rs activities

TABLE H8.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Social Acceptability
System : Residential Existing/Committed
Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Potentially acceptable for low-density development, provided source separation and pick-up is understood and convenient. Provision of recycling service to all apartments over 6 units will provide long term support for 3Rs and should increase waste diversion. Positive attitude toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose the system for their building (Von Mirbach, 1993). 	<ul style="list-style-type: none"> Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes. Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes. 	<ul style="list-style-type: none"> Positive effect by maintaining or increasing positive attitudes to 3Rs.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of back yard composting undertaken. Unlikely that many residents will drop-off leaf and yard waste. 	<ul style="list-style-type: none"> Spring, summer and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> No effect
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Effects of community composting uncertain. 	<ul style="list-style-type: none"> Positive attitudes towards composting will be enhanced, provided the nuisance concerns (see Broad Social Impact, Potential for Lifestyle changes) are mitigated. 	<ul style="list-style-type: none"> Potential growth in positive attitudes to 3Rs supported by household composting. Potential for residents of multi-family households to object to composting if odour and insect problems occur.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste. Could be concerns regarding spills by the toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management. Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material. Possible short-term concerns about reductions in white goods collection. 	<ul style="list-style-type: none"> Ensure public consultation and participation to address concerns related to HHW. 	<ul style="list-style-type: none"> Potentially a positive attitudinal effect
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. Greater environmental awareness among companies and employees practising composting (e.g. Campbells Soup). 	<ul style="list-style-type: none"> Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities. 	<ul style="list-style-type: none"> No effect

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect by reinforcing positive attitudes to the 3Rs
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRF's 	<ul style="list-style-type: none"> • Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location. 	<ul style="list-style-type: none"> • Address nuisance effects at existing facilities 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Encourages positive attitudes and perceptions that the individual/family can contribute to the solution. 	<ul style="list-style-type: none"> • Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993). 	<ul style="list-style-type: none"> • Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.
Residential Promotion and Education <ul style="list-style-type: none"> • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. • Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable). 	<ul style="list-style-type: none"> • Expand promotion and education programs 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. • Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recycle).

TABLE H8.3
GENERIC COMPONENTS NET EFFECTS

System : Residential Existing/Committed
Indicator: Willingness to Pay

MUNICIPALITY : GTA
CRITERION : Social Acceptability

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Residents and municipalities are probably willing to pay part of the cost of operating the collection system. Uncertain if regions are willing to continue existing funding arrangements or willing to accept a reduction in subsidies. 	<ul style="list-style-type: none"> Mitigation to include ongoing subsidies 	<ul style="list-style-type: none"> Residents and municipalities are probably willing to pay part of the cost of operating the collection system.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution program Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter. 	<ul style="list-style-type: none"> Support promotion of composting with education on benefits. 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Uncertain of the willingness of municipalities to pay for white goods and HHW collection. Willing to pay for depots. 	<ul style="list-style-type: none"> Region/Province to examine product stewardship for white goods. Region/Province to examine effectiveness of HHW management, and examine possibilities for joint programs with private sector. 	<ul style="list-style-type: none"> Municipalities may be less willing to pay the cost of white goods and HHW pick up.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people. 	<ul style="list-style-type: none"> Education program to address the benefits and the need for composting facilities. 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF's 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies for programs continue. 	<ul style="list-style-type: none"> Continue subsidies, government or private sector. 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies for programs continue.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies for programs continue. 	<ul style="list-style-type: none"> Continue subsidies, government or private sector. 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies for programs continue.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Local government and residents likely to continue to support this activity 	<ul style="list-style-type: none"> Programs should be linked to a public consultation program to address the specific needs of each region 	<ul style="list-style-type: none"> Local government and residents likely to continue to support this activity

TABLE H9.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Social Acceptability

System : Residential Direct Cost

Indicator: Participation in 3R's by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Recycling legislation forces participation in the short term although some residents will not support it. In the longer term likely to become acceptable. In the short term, some individuals and groups may not participate fully in the direct cost system due to initial opposition, although in the longer term, participation is likely to increase. Any type of direct cost system implemented in a region where there is a significant proportion of high-rise buildings is likely to meet with mixed success. A direct cost system intends to change waste management behaviour by adding an individual economic incentive. The incentive generally does not exist in buildings of multiple units (Bagby, 1993), unless there is broadly-based co-operation. The administration and implementation of direct cost might be complex and difficult, precluding participation by some municipalities. 	<ul style="list-style-type: none"> Promotion/education and public consultation programs should help increase participation by individuals and special/sensitive groups over time. Measure to provide relief from increase costs for low income and large households should be developed. Cooperation in the region to share expertise and knowledge may remove some implementation barriers. 	<ul style="list-style-type: none"> In the short term, some individuals and groups may not participate fully in the direct cost system due to initial opposition, although in the longer term, participation is likely to increase. Any type of direct cost system implemented in a region where there is a significant proportion of high-rise buildings is likely to meet with mixed success. A direct cost system intends to change waste management behaviour by adding an individual economic incentive. The incentive generally does not exist in buildings of multiple units (Bagby, 1993), unless there is broadly-based co-operation. The administration and implementation of direct cost might be complex and difficult, precluding participation by some municipalities. Cooperation in the region to share expertise and knowledge may remove some implementation barriers.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling and Collection</p> <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> High participation rates but vary with municipality (Enviro-nics, 1990; Hay, ND). Greatest participation by single family residences (Gale, 1990; Enviro-nics, 1990; Hay, ND). Potentially some groups (e.g., lower SES) and households less accepting/willing to participate (Lansana, 1992; Howenstine, 1993; Everett et al., 1992; Enviro-nics, 1990; Hay, ND). Potential for higher contamination rates of Blue Boxes as households place non-recyclables in Blue Box to reduce amount of garbage. 	<ul style="list-style-type: none"> Expand recycling and collection service to multi-family buildings and provide at a minimum the same level of convenience as single-family residents. To encourage apartment dwellers to participate use apartment committee and block volunteer approach (Bagby, 1993) and ensure distribution of clear information (Hager, 1992; Spaccarelli, 1990). Work with apartment building owners/managers to develop most appropriate collection system (Von Mirbach, 1993; Hager, 1990). Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al., 1992; Howenstine, 1993; Lansana, 1991; Hager, 1992). Modify program as required to address concerns of elderly (Bagby, 1993). Public education, consultation and design of the particular direct cost system will address many of the concerns. 	<ul style="list-style-type: none"> Potential for higher contamination of Blue Box in the short term.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up. Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience. 	<ul style="list-style-type: none"> Spring, summer, and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> General acceptance of collection Drop-off will not be undertaken by many.
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Residential composting participation is possible with those who have the facilities (Environics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them. Vermicomposting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain. 	<ul style="list-style-type: none"> Continue subsidies of units, provide home delivery and provide multilingual instruction for household composters. Support residents in multiple-family dwellings and support with promotion/education program and consultation program to define the best composting system for each building. Support community composting with strong education/promotion and back up with proper management and community involvement in operations. 	<ul style="list-style-type: none"> Expanded participation household composting in low, medium and high density residential areas. Increased participation likely. Vermicomposting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of municipalities without white goods collection may not be willing/able to drop off white goods Greater participation by individuals in pick-up services (eg. toxic taxis, mobile HHW depots, white goods collection). 	<ul style="list-style-type: none"> Provide call in pick up service for white goods. 	<ul style="list-style-type: none"> Increased participation by individuals; higher cost for municipalities for 3Rs.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain. 	<ul style="list-style-type: none"> Support with promotion/education program emphasising the benefits of reuse. Province to consider tax reduction (sales or income tax) for the purchase of used goods. 	<ul style="list-style-type: none"> Short term growth in shipping at reuse centres. Longer term uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new or improve/expand existing MRF's 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Promotion and Education</p> <ul style="list-style-type: none"> Promotion/education program on Direct Cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<p>Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc. is that people want more information (Environics, 1990; Watson, 1993; Morgan-Frazer, 1993; Lesnicki and Mercer, 1993; Foster, 1993).</p>	<p>Expand and refine promotion/education programs as required based on changing demographics, ethnic/language groups (Bagby, Diangson, and Patterson, 1992).</p> <p>Promotional/Education programs should be based on the successful programs identified in the 3Rs literature (e.g. Folz and Hazlett, 1990). For example, pamphlets and brochures (in utility bills, etc.) and community information meetings.</p> <p>The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message.</p>	<p>Potentially positive effect through increased participation in 3Rs activities.</p>

TABLE H9.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

CRITERION : Social Acceptability

System : Residential Direct Cost

Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Long term effects through increasing awareness and support for 3Rs of regional recycling legislation. Potential for multi-family households to object to composting if odour, and insect problems occur. Administration and monitoring may be so complex that added to the collection costs, a direct cost system may not be worth the effort (Pollock, 1993). Initially, there will be some negative attitudes on the part of the public to a direct cost system. It may be viewed by the public as an additional "tax" on citizens. This attitude may change by implementing a direct cost system designed specifically for Metropolitan Toronto. In longer term, high participating households may perceive a distinct financial advantage over lower participating households, increasing their enthusiasm for the initiative. 	<ul style="list-style-type: none"> Mitigation to include proper design of collection system for apartment building owners, managers, and dwellers. Public education and consultation will be important to enhancing positive attitudes. The householder should be shown how waste management costs are reduced on their property taxes. 	<ul style="list-style-type: none"> Long term effects through increasing awareness and support for 3Rs of regional recycling legislation. Potential for multi-family households to object to composting if odour, and insect problems occur. Administration and monitoring may be so complex that added to the collection costs, a direct cost system may not be worth the effort (Pollock, 1993). Initially, there will be some negative attitudes on the part of the public to a direct cost system. It may be viewed by the public as an additional "tax" on citizens. This attitude may change by implementing a direct cost system designed specifically for Metropolitan Toronto. Public education and consultation will be important to enhancing positive attitudes. The householder should be shown how waste management costs are reduced on their property taxes. In longer term, high participating households may perceive a distinct financial advantage over lower participating households, increasing their enthusiasm for the initiative.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Acceptable for low-density development, provided source separation and pick-up is understood and convenient (Hager, 1992). Drop-off for multi family and single family not as convenient but acceptance dependent on location and hours of operation of depot (Hager, 1992). Provision of recycling service to all apartments over 6 units will provide long term support for 3Rs and should increase waste diversion (Hager, 1992). Positive attitude toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose system. 	<ul style="list-style-type: none"> Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes. Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes. 	<ul style="list-style-type: none"> Positive effect by maintaining or increasing positive attitudes to 3Rs. Positive attitude toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose system.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of backyard composting undertaken. Unlikely that many residents will drop-off leaf and yard waste. 	<ul style="list-style-type: none"> Spring, summer and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> Could reduce the amount of composting of leaf and yard waste done on-site.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Household Composting</p> <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Vermicomposting has not been accepted on a large scale; indications are that it may not be accepted in the long term. Attitudes to community composting uncertain. Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist. 	<ul style="list-style-type: none"> Provide promotion/education program and consultation for multi-family residences Positive attitudes towards composting will be enhanced, provided the nuisance concerns (see Broad Social Impact) are mitigated. 	<ul style="list-style-type: none"> General growth in positive attitudes to 3Rs supported by household composting. Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste. Could be concerns regarding spills by the toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management (Enviroconics, 1994). Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material (Lesnicki, 1993). Possible short-term concerns about reductions in white goods collection. 	<ul style="list-style-type: none"> Ensure public consultation and participation to address concerns related to HHW. 	<ul style="list-style-type: none"> Potentially a positive attitudinal effect
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics 	<ul style="list-style-type: none"> Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. Greater environmental awareness among companies and employees practising composting (e.g. Campbell's Soup). 	<ul style="list-style-type: none"> Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities. 	<ul style="list-style-type: none"> No effect

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new or improve/expand existing MRFs 	<ul style="list-style-type: none"> • Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location. 	<ul style="list-style-type: none"> • Address nuisance effects at existing facilities 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Encourages positive attitudes and perceptions that the individual/family can contribute to the solution. 	<ul style="list-style-type: none"> • Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993). 	<ul style="list-style-type: none"> • Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program on Direct Cost system • Promotion/education program on source reduction/pre-cycling, reuse and recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate (Morgan-Frazer, 1992; Lesnicki, 1993). • Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable). 	<ul style="list-style-type: none"> • Expand promotion and education programs. • Province to assist with cost and planning, if required. 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. • Consumer education could promote change in shopping behaviour and demand for changes in product design (durable, repairable) and packaging (reduction and recycle).

TABLE H9.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Social Acceptability

System : Residential Direct Cost
Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> Implementing a direct cost system in multiple-family dwellings is difficult because of the lack of individual economic incentive to recycle (difficult to identify who disposes of the garbage). The apartment owner/manager will be viewed by the tenants as the beneficiary of their recycling activity (Bagby, 1993). Apartment owners may be unwilling to pay to provide recycling services to tenants. Generally accepted by residents (Envirotronics, 1990). Potential for the system to be seen as a regressive tax system affecting lower-income groups the most. After the phase in period households are likely to realize the benefit of diverting their waste through lower costs 	<p>Prior to the implementation of direct cost for garbage collection, local tax assessments should have a portion of the tax bill specifically designated for waste management or a specific waste management levy similar to the water and sewer fees. This tends to force people to think about the costs of garbage and waste management. Following an adjustment period, people can more readily understand volume or weight-based rates direct cost systems (e.g. Seattle). Other important measures that mitigate the negative effects of a direct cost system include: the provision of an expanded recycling program, leaf/yard waste collection, backyard composters and HHW service, free or at minimal costs; the organization of variable rate systems to allow residents a variety of choice in waste management service; an enforcement section to deal with illegal dumping; and possibly rates for low-income residences (equity concerns).</p> <ul style="list-style-type: none"> Develop a direct cost and collection system that is appropriate for apartment households. Provide incentives to apartment owners to provide recycling services to tenants. Consider ways of easing the burden on lower income and large households for direct cost garbage collection. 	<ul style="list-style-type: none"> Initial opposition to increase costs of collection of garbage without decrease of taxes. Lower income households and larger households may be unable/unwilling to pay for garbage collection. The costs to the municipality of a direct cost system may outweigh the benefits. After the phase-in period, households are likely to realize the benefit of diverting their waste through lower costs.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Residents and municipalities are willing to pay part of the cost of operating the collection system. Willingness of tenants and landlords to pay increased costs is uncertain. 	<ul style="list-style-type: none"> The region could provide advice/audits to apartment owners on the best and lowest-cost recycling opportunities. 	<ul style="list-style-type: none"> Willingness of tenants and landlords to pay increased costs is uncertain.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermicomposters to multi-family units Large 3-bin composting units distributed to apartment and co-operative housing complexes 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter. 	<ul style="list-style-type: none"> Support promotion of composting with education of benefits. Continue/increase subsidy for composters. 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.
Other Residential Waste Diversion (HHIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHIW Special HHIW drop-off days Toxic Taxi service Mobile HHIW depots 	<ul style="list-style-type: none"> Uncertain of the willingness of municipalities to pay for white goods and HHIW collection. Willing to pay for depots. 	<ul style="list-style-type: none"> Region/Province to examine product stewardship for white goods. Region/Province to examine effectiveness of HHIW management, and examine possibilities for joint programs with private sector. 	<ul style="list-style-type: none"> Municipalities may be less willing to pay the cost of white goods pick up and HHIW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people. 	<ul style="list-style-type: none"> Education program to address the benefits and the need for composting facilities. 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new or improve/expand existing MRFs 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> Mitigation to include government or private sector subsidies 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> Mitigation to include government or private sector subsidies 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Direct Cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> The Region and residents likely to continue to support this activity. 	<ul style="list-style-type: none"> Programs should be linked to a public consultation program to address the specific needs of each region. 	<ul style="list-style-type: none"> The Region and residents likely to continue to support this activity.

TABLE H10.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Expanded Blue Box

CRITERION : Social Acceptability

Indicator: Participation in 3R's by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> No mitigation required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> High participation rates but vary with municipality (Enviroincs, 1990; Hay, ND). Greatest participation by single family residences (Gale, 1990; Enviroincs, 1990; Hay, ND). Some groups (e.g., lower SES) and households potentially less accepting/willing to participate (Lansana, 1992; Howensune, 1993; Everett et al., 1992; Enviroincs, 1990; Hay, ND). Will allow residents of multiple-family residences the opportunity to participate resulting in an overall increase in participation. 	<ul style="list-style-type: none"> To encourage apartment dwellers to participate use apartment committee and block volunteer approach (Bagby, 1993) and ensure distribution of clear information (Hager, 1992; Spaccarelli, 1990). Work with apartment building owners/managers to develop most appropriate collection system (Von Mirbach, 1993; Hager, 1990). Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al., 1992; Howensune, 1993; Lansana, 1991; Hager, 1992). Modify program as required to address concerns of elderly (Bagby, 1993). 	<ul style="list-style-type: none"> Greater participation throughout residential sector with largest gains in multi-family, lower-income and ethnic groups.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up. Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience. 	<ul style="list-style-type: none"> Spring, summer, and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> General acceptable of collection Drop-off will not be undertaken by many.
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Residential composting participation is possible with those who have the facilities (Livnironics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them. Vermicomposting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain. 	<ul style="list-style-type: none"> Continue subsidies of units, provide home delivery and provide multi-lingual instruction for household composters. Support residents in multiple-family dwellings and support with promotion/education program and consultation program to define the best composting system for each building. Support community composting with strong education/promotion and back up with proper management and community involvement in operations. 	<ul style="list-style-type: none"> Expanded participation household composting in low, medium and high density residential areas. Vermicomposting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of municipalities without white goods collection may not be willing/able to drop off white goods. Greater participation by individuals in pick-up services (e.g. toxic taxis, mobile HHW depots, white goods collection). 	<ul style="list-style-type: none"> Provide call-in pick-up service for white goods. 	<ul style="list-style-type: none"> Increased participation by individuals; higher cost for municipalities for 3Rs.
Composting Facilities <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain. 	<ul style="list-style-type: none"> Support with promotion/education program emphasising the benefits of reuse. Province to consider tax reduction (sales or income tax) for the purchase of used goods. 	<ul style="list-style-type: none"> Short term growth in shipping at reuse centres. Longer term uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc. is that people want more information (Enviroics, 1990; Watson, 1993). 	<ul style="list-style-type: none"> Expand and refine promotion/education programs as required based on changing demographics, ethnic/language groups (Bagby, Diangson, and Patterson, 1992). Promotional/Education programs should be based on the successful programs identified in the 3Rs literature (e.g., Folz and Hazlett, 1990). For example, pamphlets & brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect through increased participation in 3Rs activities and changes to lifestyle.

TABLE H10.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Expanded Blue Box

CRITERION : Social Acceptability

Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Drop-off for multi family and single family not as convenient but acceptance dependent on location and hours of operation of depot. Provision of recycling service to all apartments over 6 units will provide long term support for 3Rs and should increase waste diversion. Expanded blue box should make it easier for people to source separate by reducing the questions/concerns about which material goes in. Increases positive attitude to 3Rs. 	<ul style="list-style-type: none"> Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes. Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes. Positive attitudes toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose the system for their building. 	<ul style="list-style-type: none"> Positive effect by maintaining or increasing positive attitudes to 3Rs. Positive attitudes toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose the system for their building.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of back yard composting undertaken. Unlikely that many residents will drop-off leaf and yard waste. 	<ul style="list-style-type: none"> Spring, summer and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> Could reduce the amount of composting of leaf and yard waste done on-site.
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Vermicomposting has not been accepted on a large scale; indications are that it may not be accepted in the long term. Attitudes to community composting uncertain. Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist. 	<ul style="list-style-type: none"> Provide promotion/education program and consultation program for multi-family residences. Positive attitudes towards composting will be enhanced, provided the nuisance concerns (see Broad Social Impact) are mitigated. 	<ul style="list-style-type: none"> General growth in positive attitudes to 3Rs supported by household composting. Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste. Could be concerns regarding spills by the toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management. Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material. Possible short-term concerns about reductions in white goods collection. 	<ul style="list-style-type: none"> Ensure public consultation and participation to address concerns related to HHW. 	<ul style="list-style-type: none"> Potentially a positive attitudinal effect.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. Greater environmental awareness among companies and employees practising composting (e.g. Campbells Soup). 	<ul style="list-style-type: none"> Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities. 	<ul style="list-style-type: none"> No effect

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRF's <ul style="list-style-type: none"> • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> • Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location. 	<ul style="list-style-type: none"> • Address nuisance effects at existing facilities. 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclables • Depots located at transfer stations 	<ul style="list-style-type: none"> • Encourages positive attitudes and perceptions that the individual/family can contribute to the solution. 	<ul style="list-style-type: none"> • Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993). 	<ul style="list-style-type: none"> • Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program on Expanded Blue Box program • Promotion/education program on source reduction/ pre-cycling/reuse/recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable). 	<ul style="list-style-type: none"> • Expand promotion and education programs. Province to assist with cost and planning if required. 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. Consumer education could promote change in shopping behaviour and demand for changes in product design (durable, repairable) and packaging (reduction and recycle).

TABLE H10.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Social Acceptability

System : Residential Expanded Blue Box
Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated 	<ul style="list-style-type: none"> Residents and municipalities are willing to pay part of the cost of operating the collection system. Uncertain if all municipalities in region are willing to continue existing funding arrangements, or willing to accept a reduction in subsidies, or willing to take on extra costs of expanded Blue Box. Increased costs for Landlord of providing recycling services likely to be passed on to tenants in rent increases. Willingness of tenants to pay increased rent is unknown. 	<ul style="list-style-type: none"> The region could provide advice/audits to apartment owners on the best and lowest cost recycling opportunities. 	<ul style="list-style-type: none"> In short term uncertain if tenants and landlords are willing to assume additional costs for recycling services. Uncertain if all municipalities in region are willing to continue existing funding arrangements, or willing to accept a reduction in subsidies, or willing to take on extra costs of expanded Blue Box.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting.
Residential Household Composting <ul style="list-style-type: none"> Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter. 	<ul style="list-style-type: none"> Support promotion of composting with educational of benefits. Continue/increase subsidy for composters. 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Uncertain of the willingness of municipalities to pay for white goods and HHW collection. Willing to pay for depots. 	<ul style="list-style-type: none"> Region/Province to examine product stewardship for white goods. Region/Province to examine effectiveness of HHW management, and examine possibilities for joint programs with private sector. 	<ul style="list-style-type: none"> Municipalities may be less willing to pay the cost of white goods pick-up and HHW.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people. 	<ul style="list-style-type: none"> Education program to address the benefits and the need for composting facilities. 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> Private sector or province to continue subsidies 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> Private sector or province to continue subsidies 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Local government and residents likely to continue to support this activity. 	<ul style="list-style-type: none"> Programs should be linked to a public consultation program to address the specific needs of each region. 	<ul style="list-style-type: none"> Local government and residents likely to continue to support this activity.

TABLE H11.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Wet/Dry

CRITERION : Social Acceptability

Indicator: Participation in 3Rs by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> · Curbside Collection of residential garbage from single family dwellings in three streams · Collection of residential garbage from multi-family units in three streams · Self haul of garbage · Regional recycling legislation 	<ul style="list-style-type: none"> · Recycling legislation forces participation in the short-term although some residents will not support it. In the longer term likely to become acceptable. 	<ul style="list-style-type: none"> · Mitigation not required 	<ul style="list-style-type: none"> · Recycling legislation forces participation in the short term although some residents will not support it. In the longer term likely to become acceptable.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling and Collection</p> <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Wet/Dry systems require more extensive participation than traditional Blue Boxes. When people do not participate in Blue Box programs, there is the loss of potential recyclables. With a wet/dry system, if participation is not extensive enough, there is a strong likelihood of contamination of either the wet or dry stream. If contamination is too high it can seriously jeopardise the compost quality and become a costly sorting exercise (Taylor, 1993). If the Wet/Dry system is not convenient for persons in various types of residences, participation may be very low. With an aging population, the elderly may have some difficulties in participating in the program. Will allow residents of multiple-family dwellings the opportunity to participate, resulting in an overall increase in participation. Although uncertain of applicability to multiple residence buildings. 	<ul style="list-style-type: none"> Promotion/education and public consultation programs would be absolutely essential to ensuring high levels of participation and adequate sorting on the part of residents. These efforts should be targeted in particular to non-participating groups and residences subject to higher turnover. Ensure the provision of convenient systems designed for various types of residences. Work with apartment building owners/managers to develop most appropriate collection system (Von Mirbach, 1993; Hager, 1990). Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett, et al., 1992; Howensine, 1993; Lansana, 1991; Hager, 1992). Modify program as required to address concerns of elderly (Bagby, 1993). 	<ul style="list-style-type: none"> Wet/Dry systems require high levels of commitment by participants to prevent contamination of wet and dry streams. The highest levels of participation and commitment are most likely in single-family residences because of low turnover and greater amounts of storage space than multiple-family residences.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection (continued) <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<p>It is difficult to predict the participation rate in Wet/Dry schemes. In Guelph, the Wet/Dry program achieved 62% diversion of the residential waste stream (City of Guelph, 1991). However, the project comprised fewer than 1000 residences, primarily single-family dwellings and with extensive promotion and education (City of Guelph, 1991). Guelph is unlike the GTA in that it is more ethnically homogenous. Guelph officials believe that residents are inclined to participate because of strong environmental and rural roots (Siebel, 1993). All these characteristics probably lead to the conclusion that Guelph's participation rate would be higher than the GTA.</p>		
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pickup. Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience. 	<p>Spring, summer, and fall reminders to low-density residences and apartment superintendents.</p>	<ul style="list-style-type: none"> General acceptance of collection. Drop-off will not be undertaken by many.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Residential composting participation is possible with those who have the facilities (Enviroconics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them. Vermicomposting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain. 	<ul style="list-style-type: none"> Continue subsidies of unit, provide home delivery and provide multi-lingual instruction for household composters. Support residents in multiple-family dwellings with promotion/education program and consultation program to define the best composting system for each building. Support community composting with strong education/promotion and back up with proper management and community involvement in operations. 	<ul style="list-style-type: none"> Expanded participation in household composting low, medium and high density residential areas. Vermicomposting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of municipalities without white goods collection may not be willing/able to drop off white goods. Greater participation by individuals in pick-up services (e.g., toxic taxis, mobile HHW depots, white goods and bulky items collection). If HHW collection or depot is not convenient, it may lead to HHW in the wet or dry streams with potentially serious effects on the compost quality (Taylor, 1993). 	<ul style="list-style-type: none"> Provide call in pick up service for bulky items and white goods. Monitor the wet stream for HHW contamination. Emphasize HHW services in education/promotion. 	<ul style="list-style-type: none"> Increased participation by individuals; higher cost for municipalities for 3Rs.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams. 	<ul style="list-style-type: none"> Proper sorting by the majority of citizens is essential. 	<ul style="list-style-type: none"> Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain. 	<ul style="list-style-type: none"> Support with promotion/education program emphasizing the benefits of reuse. Province to consider tax reduction (sales or income tax) for the purchase of used goods. 	<ul style="list-style-type: none"> Short term growth in shopping at reuse centres. Longer term uncertain.
Public MRF's <ul style="list-style-type: none"> New MRF or improve/expand existing MRF to process larger dry stream of recyclable 	<ul style="list-style-type: none"> Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams. 	<ul style="list-style-type: none"> Proper sorting by the majority of citizens is essential. 	<ul style="list-style-type: none"> Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams.
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Generally acceptable and important to ensuring participation. Implementation of Wet/Dry City-wide program will require a high level of personal contact with the public and a very direct monitoring and feedback system (Hoorneweg, Otten and Wong, 1993). Ongoing consultation with the public is essential (Siebel, 1993). 	<ul style="list-style-type: none"> Promotion/education and public consultation programs would be essential to ensuring high levels of participation and adequate sorting on the part of residents. Implementation of a Wet/Dry system requires a significant altering of attitudes and behaviours on the part of citizens. These efforts should be targeted in particular to non-participating groups and residences subject to higher turnover. 	<ul style="list-style-type: none"> Potentially positive effect through increased participation.

TABLE H11.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA

System : Residential Wet/Dry

CRITERION : Social Acceptability

Indicator: Attitudes and Perceptions to 3RS Activities

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling and Collection</p> <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<ul style="list-style-type: none"> Initially, there will be extensive questions about the purpose and methods of the wet/dry system (Siebel, 1993). Many people may consider the wet/dry system as a technological fix to society's waste problem. Other jurisdictions have not implemented wet/dry systems because they don't actively force people to think about the 3Rs, only about source separation (Von Mirbach, 1993). Probably acceptable for low-density development, provided system is understood and convenient. Possibly unacceptable for high-density development. The need to source separate in a bin system may cause significant odours in individual apartments and buildings. Building owners and managers may view the Wet/Dry System as unacceptable because of the potential for vermin, insects, odours, hygiene concerns and potential cost. Residents, in particular elderly and disabled may not accept Wet/Dry if inconveniences such as odour, waste sticking to bin and moving 90 gallon bins in winter are extensive. 	<ul style="list-style-type: none"> Extensive promotion/education and public consultation programs will be essential to achieving needed levels of participation and correct sorting behaviour. Ensure convenience of system to maintain positive attitudes. Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes. 	<ul style="list-style-type: none"> There is no data on a North American wet/dry system in medium to high density urban areas. There is likely to be some opposition to the implementation of a wet/dry system from building owners, managers and residents because of costs and nuisance effects. Some concerns may be addressed by developing various alternative systems for large apartments or arranging for more frequent removal. Probably unacceptable in multi-family buildings. Residents, in particular elderly and disabled may not accept Wet/Dry if inconveniences such as odour, waste sticking to bin and moving 90 gallon bins in winter are extensive.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of backyard composting undertaken. Unlikely that many residents will drop-off leaf and yard waste. 	<ul style="list-style-type: none"> Spring, summer and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> Could reduce the amount of composting of leaf and yard waste done on-site.
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Vermicomposting has not been accepted on a large scale; indications are that it may not be accepted in the long term. Potential for multi-family building residents to object to composting if odour, insect and rodent problems and health concerns are prevalent. 	<ul style="list-style-type: none"> Positive attitudes towards composting will be enhanced, provided the nuisance concerns (see "Broad Social Impact, Potential for Lifestyle Effects") are mitigated. 	<ul style="list-style-type: none"> General growth in positive attitudes to 3Rs supported by household composting. Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns are prevalent.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste. Could be concerns regarding spills by toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management. Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material. Possible short-term concerns about reductions in white goods collection. 	<ul style="list-style-type: none"> Ensure public consultation and participation to address concerns related to HHW. 	<ul style="list-style-type: none"> Potentially a positive attitudinal effect
<p>Composting Facilities</p> <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. The addition of increased amounts of "wet" waste from the Wet/Dry System may aggravate the problem. Greater environmental awareness among companies and employees practising composting (e.g. Campbell's Soup). 	<ul style="list-style-type: none"> Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities. 	<ul style="list-style-type: none"> Existing facilities are-likely to become less favourable if odour and health issues are not resolved in the near term. The addition of increased amounts of "wet" waste from the Wet/Dry System may aggravate the problem.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRF's <ul style="list-style-type: none"> • New MRF or improve/expand existing MRF's to process larger dry stream of recyclable 	<ul style="list-style-type: none"> • Currently acceptable; traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location. 	<ul style="list-style-type: none"> • Address nuisance effects at existing facilities 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> • Encourages positive attitudes and perceptions that the individual/family can contribute to the solution. 	<ul style="list-style-type: none"> • Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993). 	<ul style="list-style-type: none"> • Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Increase awareness of the need for and benefits of 3Rs and the Wet/Dry system. The public will need extensive information, education and consultation on the Wet/Dry System (Objectives, Methods, Participation, etc.). Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable). 	<ul style="list-style-type: none"> Broad expansion of promotion and education programs including telephone "hotlines". 	<ul style="list-style-type: none"> Increase awareness of the need for and benefits of 3Rs and Wet/Dry. Will motivate people to participate. Will educate people on how to participate in a constructive fashion.

TABLE H11.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Social Acceptability

System : Residential Wet/Dry
Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection <ul style="list-style-type: none"> Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households 	<p>Residents and municipalities have been willing to pay part of the costs of operating the traditional Blue Box system. Uncertain if all municipalities in region are willing to continue existing funding arrangements or willing to accept reduction in subsidies. Willingness of municipalities to accept the costs of the wet/dry system is unknown because of lack of data on wet/dry. However, the capital costs may be significant (sorting facilities, trucks for 3 streams, 3 bins/household, etc.)</p> <p>If the wet/dry system is costly to apartment owners/managers, there will be resistance to pay. As the costs of the wet/dry system are unknown, the effect is unknown.</p>	<ul style="list-style-type: none"> The region could provide advice/audits to apartment owners on the best and lowest cost Wet/Dry System. 	<ul style="list-style-type: none"> If the wet/dry system is costly to apartment owners/managers, there will be resistance to pay. As the costs of the wet/dry system are unknown, the effect is unknown. The willingness of municipalities to pay the costs of the wet/dry system are unknown. Municipalities may be hesitant to participate in wet/dry system because of potentially higher costs.
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<p>Additional costs of leaf and yard waste collection and composting are currently acceptable to residents, but costs may become an issue in the future.</p>	<p>Mitigation not required</p>	<ul style="list-style-type: none"> Additional costs of leaf and yard waste collection and composting are currently acceptable to residents, but costs may become an issue in the future.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and cooperative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher costs, for composters or for those who have not purchased a composter. 	<ul style="list-style-type: none"> Support promotion of composting. 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher costs, for composters or for those who have not purchased a composter.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Uncertain of the willingness to pay for white goods and HHW collection. Willing to pay for depots. 	<ul style="list-style-type: none"> Region/Province to examine product stewardship for white goods. Region/Province to examine effectiveness of HHW management, and examine possibilities for joint programs with private sector. 	<ul style="list-style-type: none"> Municipalities may be less willing to pay the cost of white goods and HHW pick up.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities <ul style="list-style-type: none"> Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste 	<ul style="list-style-type: none"> Region and residents continue to fund the existing leaf and yard waste composting facilities. If household "wet" waste is to be added, there will be a need for increased capacity and therefore increased costs. Regions and residents may be unwilling to pay these costs. 	<ul style="list-style-type: none"> Education program to address the benefits and the need for composting facilities. 	<ul style="list-style-type: none"> Region and residents continue to fund the existing leaf and yard waste composting facilities. If household "wet" waste is to be added, there will be a need for increased capacity and therefore increased costs. Regions and residents may be unwilling to pay these costs.
Reuse Centres and Activities <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Some people are willing to purchase use goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.
Public MRF's <ul style="list-style-type: none"> New MRF or improve/expand existing MRF's to process larger dry stream of recyclable 	<ul style="list-style-type: none"> Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs. 	<ul style="list-style-type: none"> Education program to address the benefits and the need for recycling facilities. 	<ul style="list-style-type: none"> Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and increased sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclable Depots located at transfer stations/landfills 	<ul style="list-style-type: none"> Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and therefore sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs. 	<ul style="list-style-type: none"> Education program to address the benefits and the need for recycling facilities. 	<ul style="list-style-type: none"> Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and therefore sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs.
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Local government and residents are likely to support this activity. 	<ul style="list-style-type: none"> Programs should be linked to a public consultation program to address the specific needs of each region. 	<ul style="list-style-type: none"> Local government and residents likely to continue to support this activity.

TABLE H12.1
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA **System :** Residential Mixed Waste Processing
CRITERION : Social Acceptability **Indicator:** Participation in 3R's by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Residential Recycling and Collection</p> <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> High participation rates but vary with municipality (Enviroics, 1990; Hay, ND). Greatest participation by single family residences (Gale, 1990; Enviroics, 1990; Hay, ND). Some groups (e.g., lower SES) and households potentially less accepting/willing to participate (Lansana, 1992; Howenstine, 1993; Everett et al., 1992; Enviroics, 1990; Hay, ND). Will allow residents of multiple-family residences the opportunity to participate resulting in an overall increase in participation. Some residents are likely to decide not to source separate some or all of their recyclables and food waste knowing that it will be separated for them at the central Mixed Waste Processing and Composting facility. Mixed waste processing conflicts with a philosophy of personal involvement in 3Rs; some municipalities may not want to be involved on that basis. 	<ul style="list-style-type: none"> To encourage apartment dwellers to participate use apartment committee and block volunteer approach (Bagby, 1993) and ensure distribution of clear information (Hager, 1992; Spaccarelli, 1990). Work with apartment building owners/managers to develop most appropriate collection system (Von Mirbach, 1993; Hager, 1990). Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al., 1992; Howenstine, 1993; Lansana, 1991; Hager, 1992). Modify program as required to address concerns of elderly (Bagby, 1993). 	<ul style="list-style-type: none"> Potentially greater participation throughout residential sector with largest gains in multi-family, lower socio-economic and ethnic groups. Some residents are likely to decide not to source separate some or all of their recyclables and food waste knowing that it will be separated for them at the central Mixed Waste Processing and Composting facility. Mixed waste processing conflicts with a philosophy of personal involvement in 3Rs; some municipalities may not want to be involved on that basis.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up. Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience. 	<ul style="list-style-type: none"> Spring, Summer, and Fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> General acceptable of collection Drop-off will not be undertaken by many.
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and cooperative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Residential composting participation is possible with those who have the facilities (Enviro-nics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them. Vermi-composting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain. 	<ul style="list-style-type: none"> Continue subsidies of units, provide home delivery and provide multilingual instruction for household composters. Support residents in multiple-family dwellings and support with promotion/education program and consultation program to define the best composting system for each building. Support community composting with strong education/promotion and back up with proper management and community involvement in operations. 	<ul style="list-style-type: none"> Expanded participation household composting in low, medium and high density residential areas. Vermi-composting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Residents of municipalities without white goods collection may not be willing/able to drop off white goods. Greater participation by individuals in pick-up services (eg. toxic taxis, mobile HHW depots, white goods collection). 	<ul style="list-style-type: none"> Provide call-in pick-up service for white goods. 	<ul style="list-style-type: none"> Increased participation by individuals; higher cost for municipalities for 3Rs.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Municipalities may be hesitant to participate in Mixed Waste Processing systems because of potentially higher costs of this system. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain. 	<ul style="list-style-type: none"> Support with promotion/education program emphasising the benefits of reuse. Province to consider tax reduction (sales or income tax) for the purchase of used goods. 	<ul style="list-style-type: none"> Short term growth in shipping at reuse centres. Longer term uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program 	<ul style="list-style-type: none"> Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc. is that people want more information (Enviroics, 1990)(Watson, 1993). 	<ul style="list-style-type: none"> Expand and refine promotion/education programs as required based on changing demographics, ethnic/language groups (Bagby, Diangson, and Patterson, 1992). Promotional/Education programs should be based on the successful programs identified in the 3Rs literature (e.g., Folz and Hazlett, 1990). For example, pamphlets & brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message. 	<ul style="list-style-type: none"> Potentially positive effect through increased participation in 3Rs activities.

TABLE H12.2
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Social Acceptability

System : Residential Mixed Waste Processing
Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	<ul style="list-style-type: none"> No effect 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<ul style="list-style-type: none"> Drop-off for multi family and single family not as convenient but acceptance dependent on location and hours of operation of depot. Provision of recycling service to all apartments over 6 units should provide long term support for 3Rs and should increase waste diversion. In particular if apartment owners/managers are able to choose the system for their building. 	<ul style="list-style-type: none"> Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes. Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes. 	<ul style="list-style-type: none"> Provision of recycling service to all apartments over 6 units should provide long term support for 3Rs and should increase waste diversion. In particular if apartment owners/managers are able to choose the system for their building.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of back yard composting undertaken. Unlikely that many residents will drop-off leaf and yard waste. 	<ul style="list-style-type: none"> Spring, summer and fall reminders to low density residences and apartment superintendents. 	<ul style="list-style-type: none"> Could reduce the amount of composting of leaf and yard waste done on-site.
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Vermicomposting has not been accepted on a large scale; indications are that it may not be accepted in the long term. Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist. 	<ul style="list-style-type: none"> Provide promotion/education program and consultation program for multi-family residences. Positive attitudes towards composting will be enhanced, provided the nuisance concerns (see Broad Social Impact) are mitigated. 	<ul style="list-style-type: none"> General growth in positive attitudes to 3Rs supported by household composting. Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste. Could be concerns regarding spills by the toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management. Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material. Possible short-term concerns about reductions in white goods collection. 	<ul style="list-style-type: none"> Ensure public consultation and participation to address concerns related to HHW. 	<ul style="list-style-type: none"> Potentially a positive attitudinal effect
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility 	<ul style="list-style-type: none"> Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. Greater environmental awareness among companies and employees practising composting (e.g. Campbells Soup). 	<ul style="list-style-type: none"> Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities. 	<ul style="list-style-type: none"> Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. Mixed waste composting may lead to very negative attitudes and perceptions.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities <ul style="list-style-type: none"> • Municipal reuse centre • Private reuse centre • Non-profit reuse centre • Charitable reuse centres • Food reuse organization • Special goods exchange days 	<ul style="list-style-type: none"> • Positive public and municipal attitudes; socially and environmentally beneficial. • Should reinforce positive attitudes to the 3Rs. 	<ul style="list-style-type: none"> • Mitigation not required 	<ul style="list-style-type: none"> • Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRFs <ul style="list-style-type: none"> • Processing centre for dry recyclables 	<ul style="list-style-type: none"> • Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location. 	<ul style="list-style-type: none"> • Address nuisance effects at existing facilities. 	<ul style="list-style-type: none"> • No effect
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> • Drop-off depot for dry recyclable • Depots located at transfer stations 	<ul style="list-style-type: none"> • Encourages positive attitudes and perceptions that the individual/family can contribute to the solution. 	<ul style="list-style-type: none"> • Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993). 	<ul style="list-style-type: none"> • Positive effect: encourages positive attitudes and perceptions that the individual/family can contribute to the solution.
Residential Promotion and Education <ul style="list-style-type: none"> • Promotion/education program for source reduction/pre-cycling, reuse and recycling • 3Rs promotion and education program • Consumer education program 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. • Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable). 	<ul style="list-style-type: none"> • Expand promotion and education programs. 	<ul style="list-style-type: none"> • Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. • Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recycle).

TABLE H12.3
GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Social Acceptability

System : Residential Mixed Waste Processing
Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal <ul style="list-style-type: none"> Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households 	No effect	Mitigation not required	No effect
Residential Recycling and Collection <ul style="list-style-type: none"> Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households 	<p>Residents and municipalities are willing to pay part of the cost of operating the collection system.</p> <p>Uncertain if all municipalities in region are willing to continue existing funding arrangements or willing to accept a reduction in subsidies.</p> <p>Increased costs for Landlord of providing recycling services likely to be passed on to tenants in rent increases. Willingness of tenants to pay increased rent is unknown.</p>	<p>The region could provide advice/audits to apartment owners on the best and lowest cost recycling opportunities.</p>	<p>In short term uncertain if tenants and landlords are willing to assume additional costs for recycling services.</p> <p>Residents and municipalities are willing to pay part of the cost of operating the collection system.</p>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection <ul style="list-style-type: none"> Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting and the willingness of residents and municipalities to pay for collection and composting. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Possible future concerns about the cost of leaf and yard waste collection and composting and the willingness of residents and municipalities to pay for collection and composting.
Residential Household Composting <ul style="list-style-type: none"> Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co-operative housing complexes Vermi-composting for multi-family households 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter. 	<ul style="list-style-type: none"> Support promotion of composting with educational of benefits. Continue/increase subsidy for composters. 	<ul style="list-style-type: none"> A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<p>Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)</p> <ul style="list-style-type: none"> Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots 	<ul style="list-style-type: none"> Uncertain of the willingness of municipalities to pay for white goods and HHW collection. Willing to pay for depots. 	<ul style="list-style-type: none"> Region/Province to examine product stewardship for white goods. Region/Province to examine effectiveness of HHW management, and examine possibilities for joint programs with private sector. 	<ul style="list-style-type: none"> Municipalities may be less willing to pay the cost of white goods pick up and HHW.
<p>Composting Facilities</p> <ul style="list-style-type: none"> Centralized windrow composting of leaf and yard waste Drop-off depot for leaf and yard waste 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people. 	<ul style="list-style-type: none"> Education program to address the benefits and the need for composting facilities. 	<ul style="list-style-type: none"> Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.
<p>Reuse Centres and Activities</p> <ul style="list-style-type: none"> Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items. 	<ul style="list-style-type: none"> Mitigation not required 	<ul style="list-style-type: none"> Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRF's <ul style="list-style-type: none"> Processing centre for dry recyclables 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> Subsidies from private sector or government 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue
Residential Recycling Depots and Transfer Stations <ul style="list-style-type: none"> Drop-off depot for dry recyclables Depots located at transfer stations 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue. 	<ul style="list-style-type: none"> Subsidies from private sector or government 	<ul style="list-style-type: none"> Local government and residents appear willing to pay for the facilities provided subsidies continue
Residential Promotion and Education <ul style="list-style-type: none"> Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program 	<ul style="list-style-type: none"> Local government and residents likely to continue to support this activity. 	<ul style="list-style-type: none"> Programs should be linked to a public consultation program to address the specific needs of each region. 	<ul style="list-style-type: none"> Local government and residents likely to continue to support this activity

